# Smithsonian

NOVEMBER 2002

## *The Many Faces of* FRIDA KAHLO

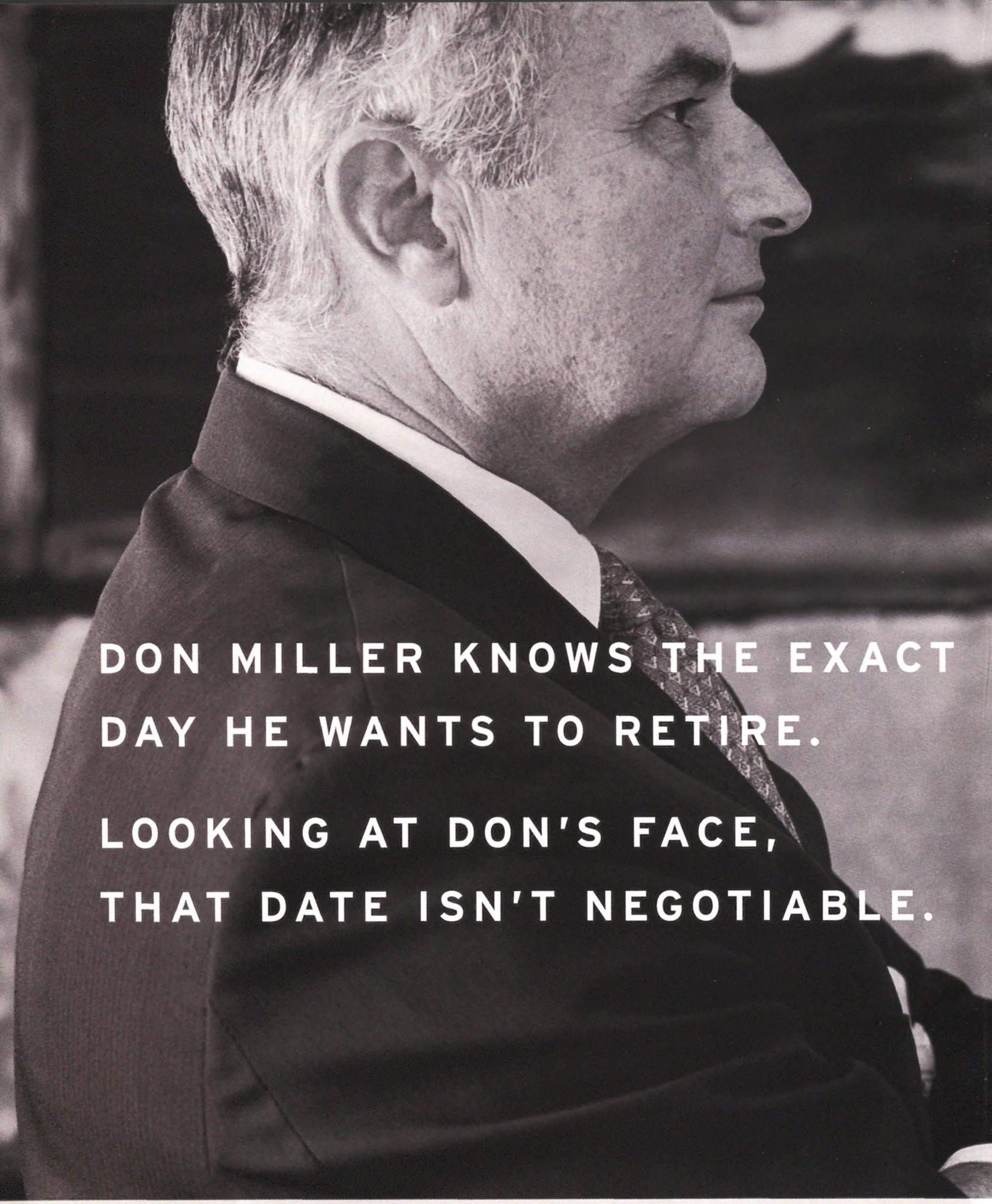
Athens Metro: Next Stop, Antiquity

Harlem Happens, Again

Maya Lin: Up Against the Wall

Raising the *Monitor*'s Turret

Stephen Ambrose on Thomas Jefferson




MERRILL LYNCH WEALTH MANAGEMENT

1-800-MERRILL OR VISIT ASKMERRILL.ML.COM

# DEBORAH FRAZIER, MERRILL LYNCH FINANCIAL ADVISOR, ON FINDING SOLID ANSWERS IN SHAKY MARKETS.

"Don's portfolio took a bit of a hit recently. That got us thinking about ways to secure his retirement. Don's not budging on that.

So I recommended a strategy to give Don more control of his wealth, no matter what the market's doing.

For greater diversification, we rebalanced Don's 401k and IRA to keep his growth potential intact while reducing his risk.

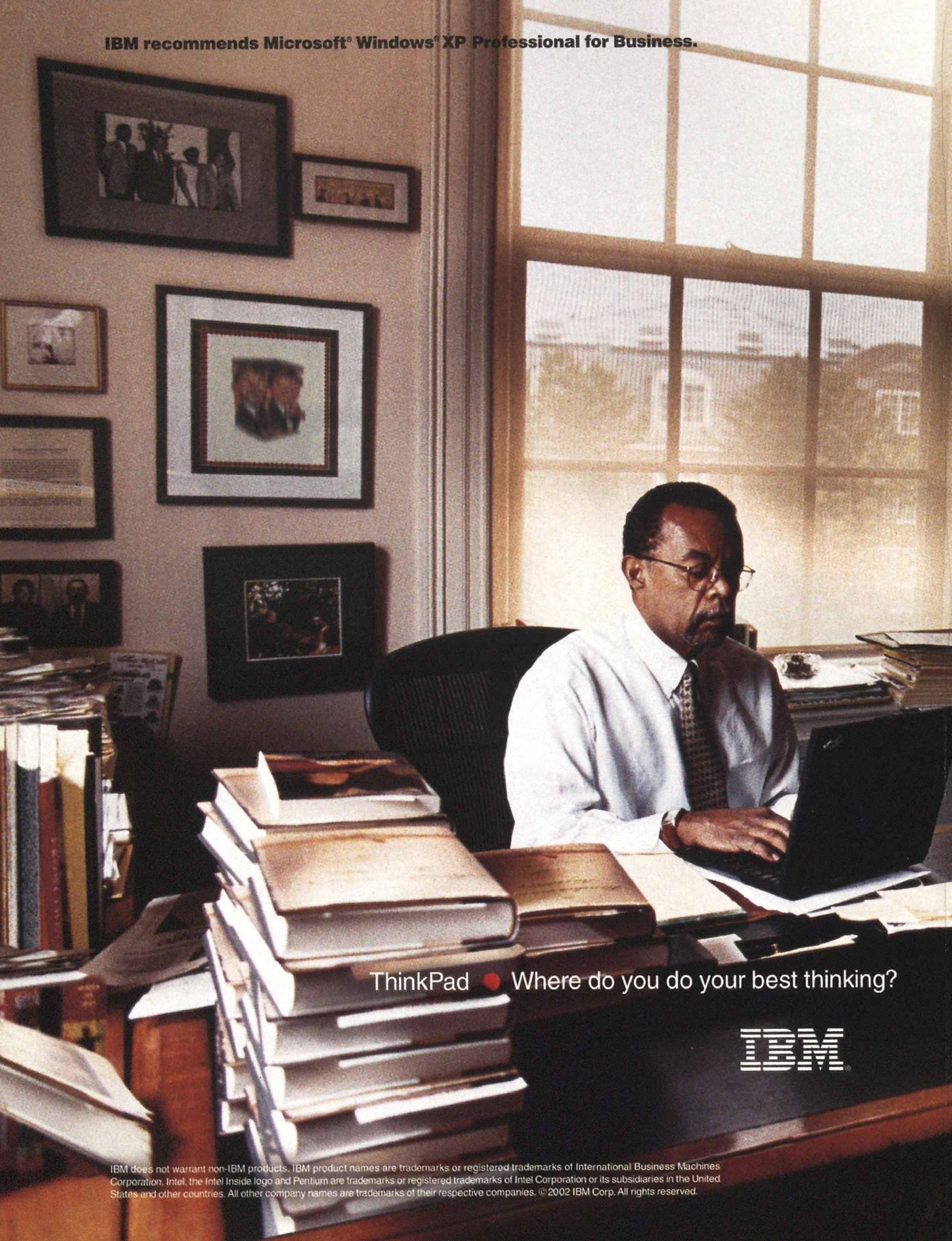
To supplement his retirement savings, I also suggested that Don consider Tax-Deferred Annuities. At his income level, the more taxes he can defer, the better. Tax-Deferred Annuities do that. They also provide Don a steady stream of income, while at the same time protecting his principal.

We simply looked at everything Don had, and his goals, and we set him up to get there.

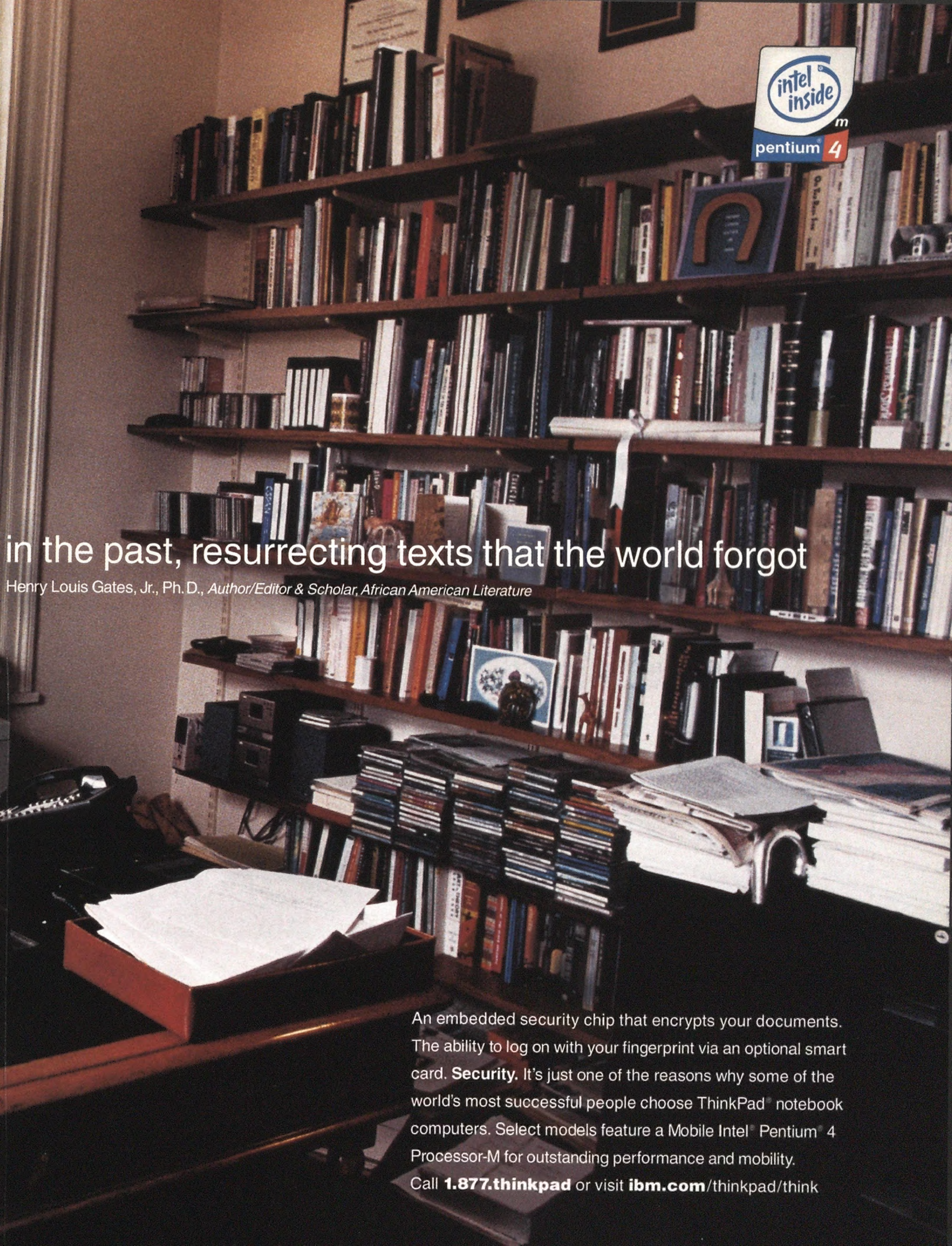
There's always a smart place for your money. Together, Don and I found it."

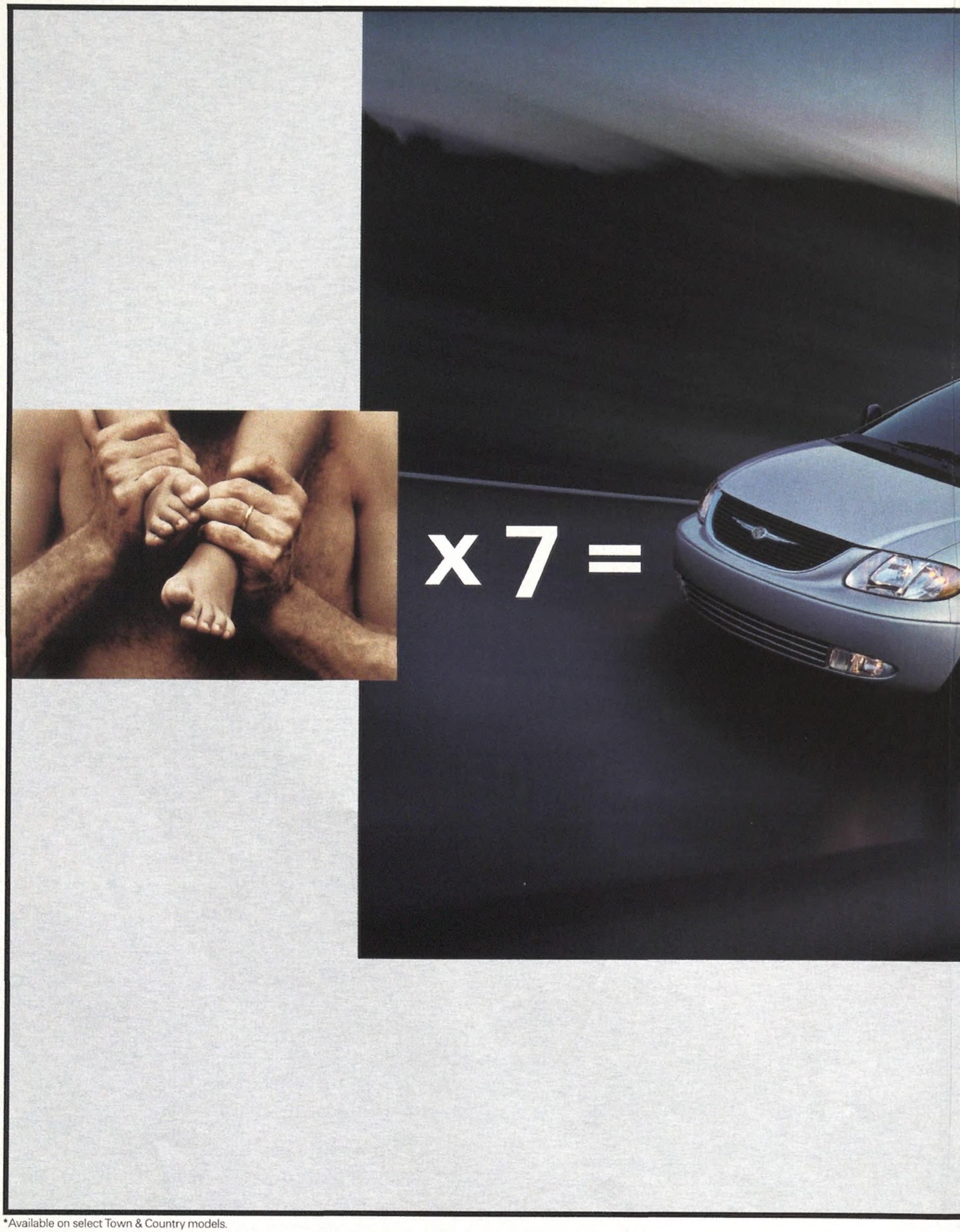
BULLISH on AMERICA

Depiction. The client's name and story are fictitious and intended to be an illustration of services available through Merrill Lynch. It may not be representative of the experience of every client. Investment results may vary. ©2002 Merrill Lynch, Pierce, Fenner & Smith Incorporated. Member, SIPC. Protected Growth Investments is a service mark of Merrill Lynch & Co., Inc.




IBM does not warrant non-IBM products. IBM product names are trademarks or registered trademarks of International Business Machines Corporation. Intel, the Intel Inside logo and Pentium are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries. All other company names are trademarks of their respective companies. © 2002 IBM Corp. All rights reserved.


intel inside
pentium 4
in the past, resurrecting texts that the world forgot
Henry Louis Gates, Jr., Ph.D., Author/Editor & Scholar, African American Literature
An embedded security chip that encrypts your documents. The ability to log on with your fingerprint via an optional smart card. Security. It's just one of the reasons why some of the world's most successful people choose ThinkPad® notebook computers. Select models feature a Mobile Intel® Pentium® 4 Processor-M for outstanding performance and mobility.
Call 1.877.thinkpad or visit ibm.com/thinkpad/think




*Available on select Town & Country models.

## TOWN & COUNTRY

Comfortable, luxurious seating for seven. The industry's only remote power dual sliding doors and liftgate,* Three-Zone Automatic Temperature Control System,* and a movable, powered center console.* It elevates the art of the piggyback to a whole new level. Call 1.800.CHRYSLER or visit chrysler.com.

CHRYSLER

Drive = Love

28

25

38

43

# departments

# Smithsonian

NOVEMBER 2002 ♜ VOLUME 33, NUMBER 8


19 **Editor's Inkwell:** Passions
BY CAREY WINFREY

20 **From the Secretary:** Cultivating Delight
BY LAWRENCE M. SMALL

22 **To the Editor:** Pentagon heroes; limerick laments . . .

25 **Indelible Images:** Unfazed by All the Buzz
The portrait that took the photographic world by swarm
BY ELIZABETH ROYTE

28 **Phenomena & Curiosities:** Requiem for a Heavyweight
Experts look for ways to save the planet's largest sea turtle
BY JEFF WHEELWRIGHT

32 **Just Looking:** *Homme* Dinger
PHOTOGRAPH BY PHILIPPE POULET/ANZENBERGER AGENCY

34 **The Object at Hand:** Lasting Impressions
Scientists painting a deerstone in Mongolia explain the blues
BY DONOVAN WEBSTER

38 **Points of Interest:** Providential Happening
A fiery installation revitalizes downtown Providence
BY FRED HAPGOOD

43 **Around the Mall:** Capital powwow; the world's hotels; boys and their toys . . .

126 **Presence of Mind:** Flawed Founders
BY STEPHEN E. AMBROSE

134 **Books:** *The Genius Within; The Backbone of the World*

140 **The Last Page:** Preparing for the Best
BY JOHN TIERNEY


From top: A leatherback hatchling paddles off Papua New Guinea; Richard Avedon's 1980 self-portrait, created with the assistance of Jim Varriale; crowds gather around a brazier at WaterFire in Providence, RI; Larry Yazzie prepares for a powwow. **COVER: A 1941 portrait of Frida Kahlo. Photograph by Nickolas Muray/George Eastman House.**

MIKE PARRY/MINDEN PICTURES; RICHARD AVEDON; CATHERINE KARNOW; BRAD EDWARDS MARKEL

# LONGER.

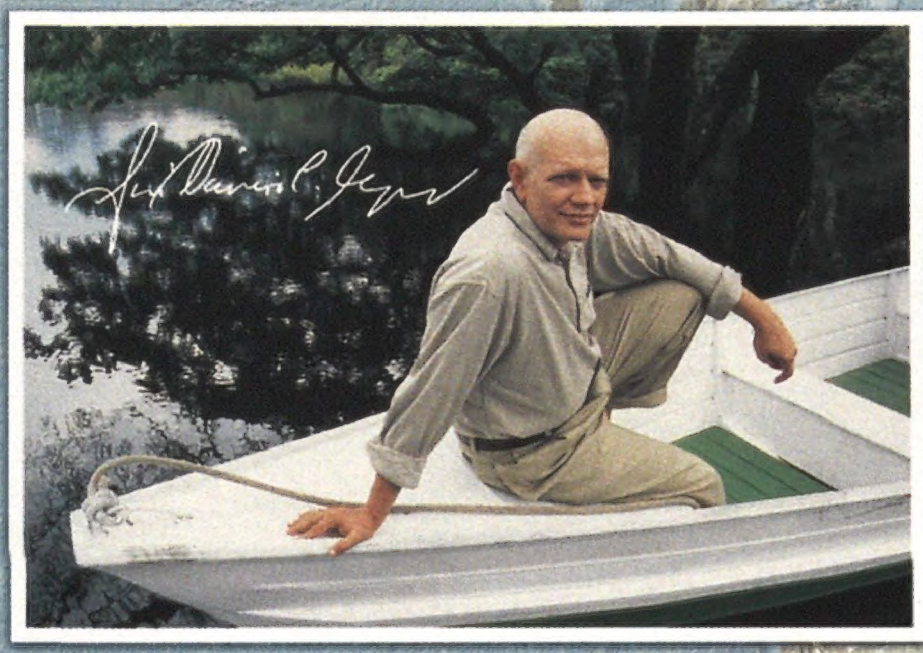
## Longer-Lasting Power for High-Tech Devices*

▶▶ Energizer® e²® batteries are built with Titanium Technology™ and advanced cell construction so they last longer in your power-hungry, high-tech devices. And the longer they last, the longer you play.

*vs. prior e²®, industry standard high-tech tests average

www.energizer-e2.com

©2002 Energizer.

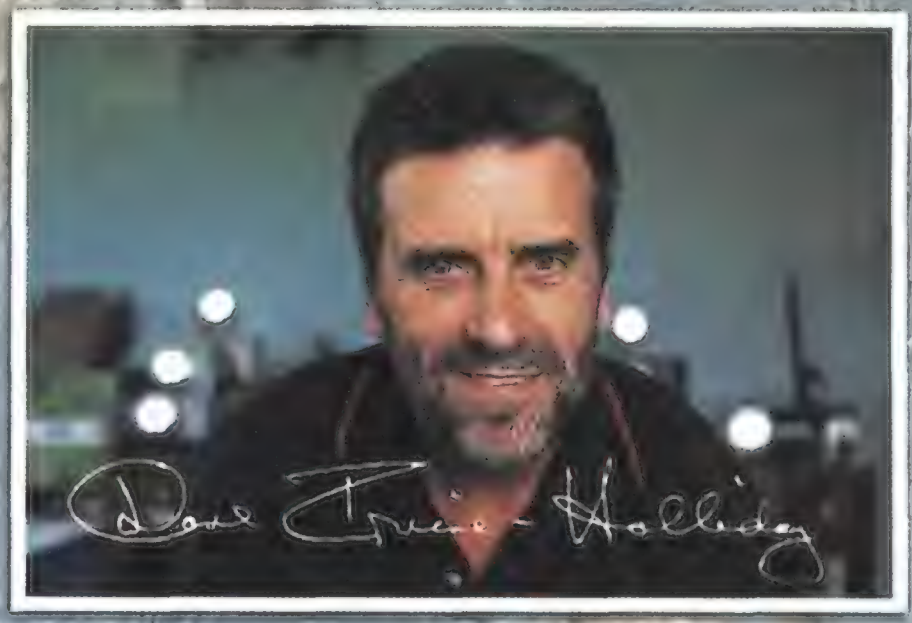


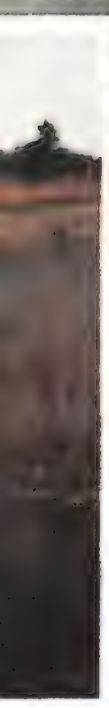
## FIVE LAUREATES FROM FOUR CONTINENTS. ALL WORKING FOR THE FUTURE OF HUMANITY.

Though their projects are as diverse as their backgrounds, the Rolex laureates of 2002 have much in common. They believe it is important to work for the betterment of humanity and the planet. They are determined to use their knowledge and skills to this end. And they know that one man or woman can make a great difference to the lives of many.

**José Márcio AYRES:** A primatologist and ecologist, Márcio Ayres has been striving to conserve wildlife in his native Brazil by creating the largest area of protected rainforest on the planet.
**Lindy RODWELL:** South African zoologist Lindy Rodwell has spearheaded efforts to protect cranes and their wetland habitats in her country and throughout southern and central Africa.

www.rolexawards.com



**Gordon SATO:** American biologist Gordon Sato is using sunlight and seawater in an agricultural project that is improving life for the inhabitants of Eritrea's barren coastline.

**Dave IRVINE-HALLIDAY:** Canadian electrical engineer Dave Irvine-Halliday is adapting cutting-edge technology to bring affordable lighting to thousands of rural homes in developing countries.

**Michel ANDRÉ:** Determined to halt fatal collisions between whales and ships, French marine biologist Michel André has devised a system that protects whales while benefiting shipping and tourism.

THE ROLEX AWARDS *for* ENTERPRISE

© 2002 United Parcel Service of America, Inc.

OVER THE COURSE OF HIS THIRTY-YEAR CAREER, KEN LEE HAS DONE EVERYTHING.

# EXCEPT QUIT.

Ken Lee started working at UPS in 1971, when he was still a student in college. Since then, he's tackled a number of jobs in cities across the country. In his first UPS job, Ken unloaded trucks. A promotion took him to Seattle. Then to Greenwich, CT. Then to Atlanta. At UPS, we offer employees diverse experiences to help meet the needs of a diverse workforce. That approach has worked well for us, and for Ken Lee. Today, he's Vice President for International Security at UPS. We can rest easy as long as Ken's in that role. Because no matter what comes up, we know he won't give in.

**WHAT CAN BROWN DO FOR YOU?℠**

**community.ups.com**

features

# Smithsonian

NOVEMBER 2002 ♜ VOLUME 33, NUMBER 8

50 Frida Kahlo
Nearly a half-century after her death, the famous Mexican artist, leftist and wife of Diego Rivera strides boldly to the big screen
BY PHYLLIS TUCHMAN

62 Pieces of History
From the retrieved turret of the USS *Monitor*, researchers are learning more about the sinking of the fabled Civil War ironclad on a "night of horrors" in 1862
BY WENDY MITMAN CLARKE
PHOTOGRAPHS BY LYNDA RICHARDSON

74 Coming Up Harlem
For artists, activists, intellectuals and home-seekers, the legendary black community is once again *the* place to be
BY PETER HELLMAN
PHOTOGRAPHS BY JEFFREY HENSON SCALES

90 Monumental Achievement
Twenty years after the unveiling of her controversial Vietnam Veterans Memorial, architect Maya Lin looks beyond the Wall
BY ROBERT F. HOWE

100 Otterly Fascinating
Though no longer hunted for their pelts, the giant river otters of Brazil's glorious Pantanal are not yet out of the woods
BY DEREK GRZELEWSKI ◆ PHOTOGRAPHS BY THEO ALLOFS

110 Apples of Your Eye
A handful of hobbyists and nurserymen are working against time to rescue such delicious old apple varieties as Black Limbertwig, Morton's Spice and Virginia Beauties from extinction
BY TIM HENSLEY ◆ PHOTOGRAPHS BY RICHARD ROBINSON

120 Unearthing Athens' Underworld
What began as Greece's greatest public-works project—the building of the Athens subway system—has turned into its most important archaeological dig ever
BY RUDY CHELMINSKI

100

62

74

From top: A giant river otter devours a fish in Brazil's Pantanal; Lt. Cmdr. William Jeffers, of the USS *Monitor*, sits in front of the turret, 1862; Mathieu and Pauline Dunoyer in their music room, in Harlem.

THEO ALLOFS; THE MARINERS' MUSEUM; JEFFREY HENSON SCALES

AS YOUR FINANCIAL LIFE BECOMES MORE COMPLEX,

# WE'VE MADE FINDING THE RIGHT ADVISOR

TO HELP MANAGE IT SIMPLER.

*There's never been a better time for the Schwab Advisor Network.*™

## THE INDEPENDENT ALTERNATIVE

JOHN R. HILL, CFP
PINNACLE ADVISORY GROUP LC
SCHWAB ADVISOR
NETWORK MEMBER

As your portfolio grows, so does the complexity of managing it. And once you decide to delegate management of some or all of your portfolio, the question then becomes whom do you trust.

With the Schwab Advisor Network,™ we can help you find an independent, fee-based advisor who can handle the day-to-day complexities of managing your financial life, including portfolio management, comprehensive financial planning, tax-sensitive investing and wealth management. Advisors may also offer specialized services, including trust and estate and tax planning.

*Data is self-reported as of 4/02.
Schwab prescreens advisors and checks their experience and credentials against criteria we set. Advisors pay Schwab fees to be members of the Schwab Advisor Network. Network member advisors are independent and not employees or agents of Charles Schwab & Co., Inc. Investors must decide whether to hire an advisor and what authority to give them. This ad is not a referral to or recommendation of

### HAND-SELECTED BY SCHWAB

Members of our network are hand-selected by Schwab, have been in business an average of 17 years and manage an average of $500 million in assets.* Each expert advisor must meet Schwab's extensive standards. Financial advisors are fee based and don't work on commission, therefore reflecting our commitment to provide financial advice based on your interests. So the advice you receive isn't subject to the conflicts of interest that often get in the way of traditional brokerage relationships.

### THE FINE ART OF CHOOSING AN ADVISOR

Selecting the best financial advisor for you from the Schwab Advisor Network begins with sitting down with a Schwab Investment Consultant to determine your needs and preferences. From small, local firms to large, nationwide companies, we can recommend and introduce you to an advisor with the experience, expertise and philosophy you are looking for. The relationship you establish with the independent financial advisor you choose should be based on trust and shared values.

Schwab Advisor Network members can provide the personalized portfolio management and financial planning services affluent investors need to stay in control and away from the day-to-day details.

If you'd like to find a financial advisor to help with managing the complexities of your financial life, call Charles Schwab and ask about the Schwab Advisor Network.

TO LEARN MORE ABOUT HOW THE SCHWAB ADVISOR NETWORK CAN HELP YOU FIND THE RIGHT ADVISOR,

CALL

**1-800-790-7702.**

**THE PRINCIPLES OF SCHWAB**

THE PRINCIPLE OF THE INDIVIDUAL INVESTOR • THE PRINCIPLE OF FACTS, NOT HYPE • THE PRINCIPLE OF ADVICE NOT DRIVEN BY COMMISSION

*charles* SCHWAB

| Call | 1-800-790-7702 | Click | schwab.com | Visit | 395 locations nationwide |
|---|---|---|---|---|---|

Pinnacle Advisory Group LC or its representatives. For important information and specific advisor recommendations, ask a Schwab Investment Consultant.
©2002 Charles Schwab & Co., Inc. All rights reserved. Member SIPC/NYSE. (0902-9458). ADS24037SPD.

FOR ALL THE
PEACE OF MIND
YOU NEED ON THE ROAD,
PRESS HERE.

On

WHEN YOU CHOOSE AN IMPALA EQUIPPED WITH ONSTAR®, YOU'LL HAVE PEACE OF MIND WHEREVER YOU GO – EVEN IF YOU RUN OUT OF GAS FIFTY MILES FROM NOWHERE. JUST PUSH THE BLUE ONSTAR BUTTON AND AN ADVISOR CAN PINPOINT YOUR LOCATION VIA SATELLITE AND SEND FOR ASSISTANCE. IF YOUR AIR BAGS DEPLOY, AN ADVISOR WILL CALL TO CHECK ON YOU. IF YOUR IMPALA IS STOLEN, WE CAN HELP AUTHORITIES TRACK IT DOWN. AND IF YOU UPGRADE TO THE ONSTAR DIRECTIONS & CONNECTIONS PLAN, ADVISORS CAN ALSO GIVE YOU DIRECTIONS AND INFORMATION ABOUT ANYTHING FROM ATMS TO ZOOS. TO LEARN MORE, VISIT ONSTAR.COM OR CALL 1-888-ONSTAR-7 (1-888-667-8277).

OnStar®
ONSTAR.COM

CHEVROLET

CHEVROLET AND IMPALA ARE REGISTERED TRADEMARKS OF THE GM CORP. ©2002 ONSTAR CORP. ALL RIGHTS RESERVED.

# Smithsonian

www.smithsonianmag.com

**PUBLISHER**
Amy P. Wilkins

**GENERAL MANAGER**
David R. Kefford

**ADVERTISING**
Thomas M. Huber, *Associate Publisher*
Elise Boeger, *Int'l Travel Dir.*
Jeff Diskin, Gerry Kiernan, Meryle Lowenthal, Jill Reid Mullan, *Account Mgrs.*
Lisa Bianco, *Nat'l DR Mgr.*
Marilyn Cruz, *Ad. Services Mgr.*
**Southeast:** Byron Brown, Suzanne Cooper, Judy Robinson
**Midwest:** Dick Opfer, Bill Milligan, Mark Rosenbaum, Susan Hagerup, Karen Koller
**Detroit:** Don Heth, James McNulty, Michael Peters, Jill Severini
**San Francisco:** Charles E. Schmuck, Linda Bowers, Bridget Pivonka, Shirley Read-Jahn
**Los Angeles:** Gary Thompson, Martha Quigley, Allison Boxer-Revivo, Cheryl Smith, Alison Lundy
**Australia:** Jake Wilson
**Canada:** Bob Dodd
**Caribbean/Mexico/South America/ Central America:** Al Nadal
**Hong Kong:** Heather Riley
**Japan:** Simon R. Timmis
**United Kingdom:** Ken Melville

**BUSINESS OFFICE**
Myrian Mora, *Exec. Administrator*
Valerie Martin, *Ad. Systems Dir.*
Shelia Brannum, *Ad. Billing/ Collections Mgr.*
Michael Pollock, *Ad. Systems Mgr.*
Lawrence Sirna, *AP/GL Mgr.*
John Comer, *Accounting Specialist*

**ADVERTISING ASSISTANTS**
Neal Charles, Katherine Madson, Christopher Tedrick

**CONSUMER MARKETING**
Scott I. Rockman, *Vice President*
Lisa Dunham, *Circulation Dir.*
Elizabeth M. Hopkins, *Planning Dir.*
Andrea Sole, *Fulfillment Dir.*
Donald G. Dodd, *Forecast Mgr.*
Suzanne L. Eng, *Purchasing Mgr.*
Rosemary Sweeney, *Direct Mail Mgr.*
Yvonne Alvarez, *Membership Services Coord.*
Nelson Santiago, *Administrative Asst.*
Amity Boone, *Renewals Marketing Coord.*

**MARKETING**
Diane Lowman, *Director*
Kelly Cannon, *Assoc. Marketing Dir.*
Renée Martin, *Art Dir.*
Kristin Ott, *Manager*
Lisa Van Dyne, *Coordinator*
Julia Coney, *Int'l Travel Coord.*

**PRODUCTION**
Greg Williams, *Director*
Katherine Balch, *Ad. Prod. Manager*
Rachel L. Gilmore, *Digital Ad. Coord.*
Sarah Kingsley, *Dir. of Manufacturing*
David Sterling, *Prepress Manager*
Rahsaan J. Jackson, *Production Asst.*

**RESEARCH**
Renée Mitchell, *Director*
Marilyn Resciniti, *Manager*
Margy Van Buren, *Sr. Analyst*

**WEB DEVELOPMENT**
Michelle A. McMahon, *Director*
Angela Render, *New Media Ed. Asst.*
Patrick Q. Woods, *New Media/Web Administrator*

**ASSISTANT TO THE PUBLISHER**
Edward J. Hayes

**PUBLISHER EMERITUS**
Joseph J. Bonsignore

**SMITHSONIAN BUSINESS VENTURES**
Gary M. Beer, *Chief Executive Officer*
Elaine Gill, *Executive Assistant*

**BOARD OF DIRECTORS**
Anthony Welters, *Chairman*
Gary M. Beer, John R. Dailey, Thomas M. Kenney, Alice Maroni, Adolfo Marzol, M. Ronald Ruskin, Donald J. Steiner

**MAIN ADVERTISING OFFICE:**
420 Lexington Avenue, Suite 2335, New York, NY 10170, (212) 490-2510

It's hard to stop when you're having this much fun. That's why Chevy™ Impala® offers the safety and security of available OnStar®. Need gas? We'll be there. OnStar can give you everything from accident/roadside assistance to GPS Stolen-Vehicle Tracking. OnStar. A great way to enhance a great Impala drive.

chevy.com or 1-800-950-CHEV

**IMPALA WE'LL BE THERE**

Call 1-888-ONSTAR® or visit onstar.com® for system information and details. OnStar and the OnStar Emblem are registered service marks of OnStar Corporation. ©2002 GM Corp. Buckle up, America! ■

# WHY LEARN A FOREIGN LANGUAGE WHEN YOU'LL JUST SPEND THE WHOLE TRIP SPEECHLESS.

Just off the bow, enchanted landscapes reveal themselves in breathtaking ways—often spectacular, sometimes sublime, always unforgettable. This is the world as interpreted by Holland America. Where you'll sail in

Alaska
Asia & Pacific
Canada
Caribbean
> *Europe*
Hawaii
Mexico
Panama Canal
South America
World Voyage

exquisite five-star comfort. With service so supremely intuitive, you may just find all your needs answered, without uttering so much as a word.
*CALL YOUR TRAVEL AGENT OR 1-877-SAIL HAL, EXT 737 WWW.HOLLANDAMERICA.COM*

Holland America

Smithsonian

EDITOR
Carey Winfrey

MANAGING EDITOR
Sally Scott Maran

SENIOR EDITORS
Diane M. Bolz
Kathleen M. Burke
Marlane A. Liddell
Terence Monmaney
John F. Ross

PICTURE EDITOR
Bonnie Stutski

COPY CHIEF
Karen Larkins

ASSOCIATE EDITORS
Bruce Hathaway
Marian Smith Holmes
Alison C. McLean
Lucinda Moore
Beth Py-Lieberman

COPY EDITOR
Rebecca Maksel

DEPUTY ART DIRECTOR
Erik K. Washam

ASSOCIATE PICTURE EDITOR
Molly Roberts

ASSISTANT EDITORS
Elizabeth J. Erskine
Lyn Garrity
Valerie Jablow
Angela M. Pleasants
Helen E. Starkweather

PICTURE DEPARTMENT MANAGER
Carrie Diane Cole

ASSISTANT PICTURE EDITOR
Nell Whiting

ASSISTANT TO THE EDITOR
Andrea Georgiou

EDITORIAL ASSISTANTS
Michelle L. Strange
Chai N. Woodham

READER SERVICES
Karla A. Henry
Carolyn McGhee

EDITORIAL OFFICES:
MRC 951, Washington, DC 20013-7012, (202) 275-2000

SUBSCRIPTIONS:
(800) 766-2149. Outside the United States: (386) 447-2721. P.O. Box 420312, Palm Coast, FL 32142-0312.
www.smithsonianmag.com

*Sorry, but* SMITHSONIAN *cannot assume responsibility for unsolicited materials.*

Smithsonian Institution

SECRETARY OF THE SMITHSONIAN INSTITUTION
Lawrence M. Small

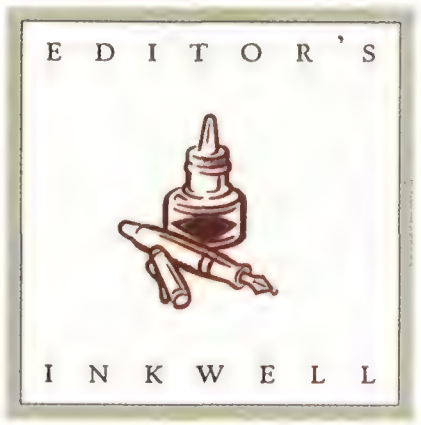
BOARD OF REGENTS
The Chief Justice of the United States, *Chancellor*
Vice President of the United States,
Richard B. Cheney
Hon. Thad Cochran
Hon. Bill Frist
Hon. Patrick J. Leahy
Hon. Sam Johnson
Hon. Robert T. Matsui
Hon. Ralph Regula
Hon. Barber B. Conable, Jr.
Ms. Anne d'Harnoncourt
Dr. Hanna H. Gray
Dr. Manuel L. Ibáñez
Dr. Walter E. Massey
Mr. Roger W. Sant
Mr. Alan G. Spoon
Ms. Patricia Q. Stonesifer
Mr. Wesley S. Williams, Jr.

SMITHSONIAN NATIONAL BOARD
Mr. Frank A. Daniels, Jr., *Chair*
Mrs. Patricia Frost, Mr. Henry R. Muñoz III, Mr. David M. Silfen, *Vice Chairs*

**National Board:** Mr. Kenneth E. Behring, Mr. L. Hardwick Caldwell III, Mr. Richard O. Campbell, Mrs. Jean Case, Mr. Pete Claussen, Ms. Laurel Cutler, Mr. George A. Didden III, Mr. Robert G. Donnelley, Mr. Archie W. Dunham, Mrs. Jane B. Eisner, Mr. Stephen Hamblett, Mr. Frederic C. Hamilton, Mrs. Susan W. Hammer, Mr. Michael R. Haverty, Mr. John E. Herzog, Mrs. Edna Jones,* Mrs. Dorothy G. Lemelson, Mr. Peter H. Lunder, Mrs. Elizabeth S. MacMillan, Mr. John D. Macomber, Mrs. Holly Madigan, Mr. Frank Martucci, Mr. Edgar M. Masinter, Ms. Amy Sarah McCombs, Mr. Augustus C. Miller, Mr. Kenneth B. Miller, Mr. Howard P. Milstein, Mr. Charles H. Moore, Mrs. Susan Reed Moseley, Mrs. Mary Ourisman, Mr. Paul L. Peck, Mr. S. Davis Phillips, Mr. Thomas F. Pyle, Jr., Mrs. Catherine B. Reynolds, Ms. Susan Lynch Ruddy, Mr. Richard T. Schlosberg III, Mrs. Helen Spaulding, Mr. Daniel W. Yohannes

**Honorary Members:** Mr. Robert Mc C. Adams, Mr. William S. Anderson, Hon. Max N. Berry, Mr. Richard P. Cooley, Mr. Joseph F. Cullman 3rd, Mr. Charles D. Dickey, Jr., Mr. Alfred C. Glassell, Jr., Mr. I. Michael Heyman, Mr. James M. Kemper, Jr., Mrs. Jean B. Mahoney, Hon. George C. McGhee, Justice Sandra D. O'Connor, Mr. Francis C. Rooney, Jr., Mr. Wilbur L. Ross, Jr., Mr. Lloyd G. Schermer, Hon. Frank A. Weil, Mrs. Gay F. Wray

* Ex-Officio




# Passions

## NUTS ABOUT HISTORY AND BONKERS FOR BASEBALL

BY CAREY WINFREY

"MY FASCINATION FOR THE SEA COUPLED WITH TWO OTHER PASSIONS—HISTORY and archaeology—made chasing the story of the retrieval of the USS *Monitor*'s turret [see "Pieces of History," p. 62] more fun than I should legally be allowed," says author Wendy M. Clarke, who ventured 240 feet beneath the sea in a 23-foot research sub to visit the ironclad on the ocean bottom. "The *Monitor* has magic, that's the only way I can describe it," Clarke continues. "Once people have seen it, they can't stay away. Navy divers are suddenly eating and sleeping with history books. Archaeologists paper their office walls with drawings diagramming every part of it. Hundreds of people showed up to see the turret come up the James River—many in Civil War costume, including women in mourning clothes. What happened to the *Monitor* and 16 of its men was tragic. But through some sort of magnetism, mystery, magic—call it what you will—the *Monitor* is as alive now as it ever was."

Wendy Clarke: More fun than is legal.

IT WAS CLEAR TO PETER HELLMAN, who wrote about the second Harlem renaissance ("Coming Up Harlem," p. 74), that Bill Clinton revels in his status as the neighborhood's Tenant in Chief. It was equally clear that the 42nd president got impatient posing for a photographer on an unseasonably warm day. "Hey, it's hot here in the sun," he said playfully to Jeffrey Scales, "aren't you done?" (Scales ignored the former leader of the free world until he got his picture, an homage to Art Kane's famous 1958 photograph of 57 jazz musicians in front of a brownstone on East 126th Street, p. 80.) Clinton still keeps a tight schedule, and Hellman interviewed him in the presidential SUV as it sped along 126th Street. Then, at his office, Clinton played host at a pizza party for the Harlem youngsters whose team reached the U.S. semifinal of the Little League World Series. Turns out Clinton knows a thing or two about hardball of the nine-inning variety. He held forth on why playing for the San Francisco Giants dampens Barry Bonds' stats. "If Bonds had a normal number of walks," said Clinton, "he'd have 80 homers. But every time Bonds comes up, the World Series could be at stake. In a bizarre way, he'd hit more home runs if he were on a worse team." Says Hellman: "Clinton is spirited talking about economic reform, but he's just plain bonkers about baseball." Hellman, who lives on Manhattan's Upper West Side, did most of his reporting by bicycle. "It's the best way to appreciate the rich fabric of life there," he says.

DAVID HALL/NOAA

# Cultivating Delight

## FROM THE SECRETARY

THE EARLIEST PHOTOGRAPHS OF THE SMITHSONIAN Castle, dating from the 1850s, provide matchless views of the young building and its fanciful array of windows, turrets and towers. But the building rises from a flat and barren landscape, with little on the surrounding acres but a meager scatter of bushes and trees. Today the Castle sits in a setting of immaculately cultivated lushness. It's bounded by gardens (the adjacent Haupt and Folger gardens, the nearby Ripley garden) and girded with greenery, not always of a predictable variety. A couple of palm trees sway opposite one entrance, and a hardy strain of banana grows near another. All the Institution's museums wear green, and a palette of other colors, too, in sync with the seasons. The responsibility for making the premises bloom falls on the men and women of our Horticulture Services Division. Without their skills, how diminished the experience of visiting the Smithsonian would be!

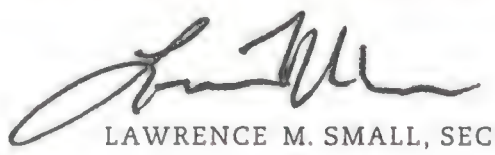
Bold design blooms in the Enid Haupt Garden's parterre.

Horticulture Services was established as a separate division of the Smithsonian only three decades ago. Besides attending to the design and management of the museums' exterior landscapes, it furnishes plants and flowers that, in effect, finish the interiors. It's on call as well for dinners, receptions and lectures, which on a typical day can require the delivery and removal of hundreds of plants. There's a scholarly component too. The division's Archives of American Gardens, a collection of approximately 80,000 photographic images—among them, 3,000 hand-colored lantern slides—and other materials, including architectural drawings, documents the design of American gardens from 1920 to the present and thereby safeguards the history of an important element of our cultural heritage.

Of course, the most visible—and formidable—accomplishment of Horticulture Services has been the transformation of the Smithsonian's landscape. The Institution's Washington museums are surrounded by approximately 180 acres of lawns, trees, formal gardens, planters and decorative displays. There are four acres of planters around the National Air and Space Museum alone, and there will be 27,000 plants around the new National Museum of the American Indian when it opens in 2004. The staff of the division face challenges you would expect, such as keeping the vast acreage properly watered, with the help of a computer that monitors the complex irrigation system, and others you might not, such as rat control. What they accomplish is all the more remarkable because the Smithsonian's great diversity of plants and flowers originates in 11 greenhouses (several of them looking antique enough to be part of our museum collections) on a site leased by the Institution in northeast Washington.

Orchids are a particular glory of Horticulture Services. There are more than 25,000 naturally occurring species of orchids in the world and at least four times that number of hybrids. The astonishing variety in the flower is part of its fascination. The Smithsonian's orchid collection began with 5 plants in 1974 and now numbers more than 10,000 specimens, including rare and endangered species and those with flowers so small—hardly larger than a kernel of corn—that you would never take them for orchids. The division's handiwork will be on spectacular display once again this winter when the ninth annual orchid show, cosponsored with the U.S. Botanic Garden, opens on the Mall on January 18, 2003. For four months, the familiar interior of the Arts and Industries Building will become an exotic garden, with its own population of butterflies.

To say, as Shakespeare does, that "Adam was a gardener" is to give the occupation the lineage it deserves. Of course after paradise, the practice of making the earth bloom—out of necessity and delight—became hard work. Our staff continue that practice daily and so successfully that any resident of Eden might feel right at home here too.



LAWRENCE M. SMALL, SECRETARY

JEFF TINSLEY/HORTICULTURE SERVICES DIVISION, SI

# 1° of separation between chitchat and ka-ching.

When software lets you quickly capitalize on new customer opportunities, that's business with .NET.

Talking about what customers want is one thing. Discovering exactly what they want and deriving revenue from those wants, of course, is the real goal. .NET connected software from Microsoft connects you with all your customer touch-points via the Web, so you have comprehensive, real-time customer information that can be used to develop ideas for new products and services, and bring them to market quickly. That's one degree of separation. That's business with .NET. Find out how .NET connected software can help you use the Web to drive revenue in new ways.

Go to **microsoft.com/enterprise** Software for the Agile Business.

**Nasdaq.com,** looking to grow both site traffic and online revenues, will use .NET connected software from Microsoft to send customized alerts to their customers about the latest market and economic developments—anywhere, on any device. And they have the ability to create this innovative new service from scratch in just two months.

Microsoft

© 2002 Microsoft Corporation. All rights reserved. Microsoft is a registered trademark of Microsoft Corporation in the United States and/or other countries. The names of actual companies and products mentioned herein may be the trademarks of their respective owners.

*Readers respond to the September issue.*

### LIMERICK'S LAMENT

IT WAS GREAT TO SEE YOUR ARTICLE "The Limerick Is Furtive and Mean." Regrettably, this delightful poetry is not generally accepted as such by the literati. But the limerick can speak for itself:

I'm a limerick, poetic and terse,
Yet I make all the "pure"
poets curse.
How can they revile
My succinct limerick style,
And embrace that unruly
free verse?

*Richard H. Givens*
*Dayton, Ohio*

THE LIMERICK STORY, I STUCK IT
Hastily in the trash bucket
For I saw with dismay
That it nowhere did say
Nary a word of Nantucket!

*Glen Lindwall*
*La Jolla, California*

### CARSON'S CRITIC

"SOUNDING THE ALARM," ABOUT THE legacy of Rachel Carson, quoted a critic of her environmental work, Dennis Avery, but did not mention his affiliation. He is associated with the Hudson Institute, a conservative think tank that has received money from chemical companies, energy firms and the pharmaceutical industry.

*Jim Jacobs*
*Joyful Noise Organic Farm*
*Virginia Beach, Virginia*

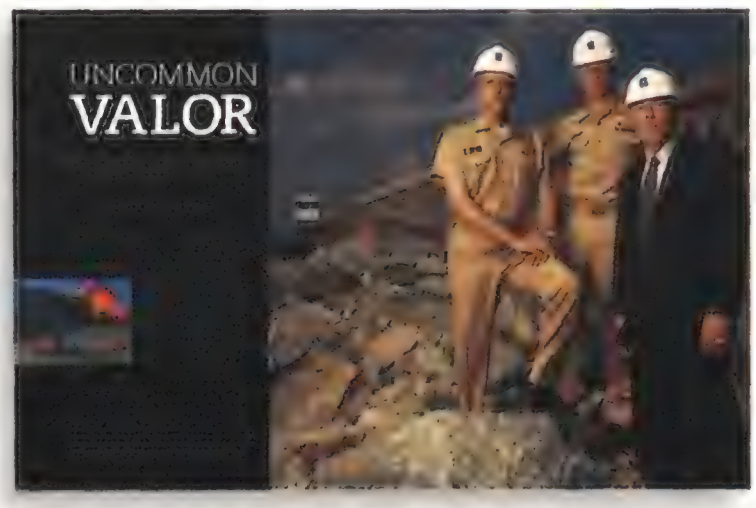
### ANTARCTICA'S CHILLS

"EYE IN THE SKY," WHICH PRESENTS aerial photographs by Yann Arthus-Bertrand, misstates the temperature range in Antarctica. A high of 51 degrees F was recorded at the U.S. Antarctic Program's McMurdo Station. The lowest temperature, -129.3 degrees F, was recorded at Vostok Station, Antarctica.

*Jonathan Thom*
*Antarctic Automatic Weather Stations*
*Madison, Wisconsin*

### SEPTEMBER'S HEROES

KEN RINGLE'S ARTICLE "UNCOMMON Valor," and its graphic exploration of what it was like in the Pentagon on September 11, 2001, meant a great deal to us. Our son, Navy Cmdr. Dan Shanower, lost his life that day. It was important to read what that inferno was like and to know that his Navy family members were performing heroics wherever possible.




*Pat Shanower*
*Naperville, Illinois*

YOUR CHRONICLE OF HEROICS AT THE Pentagon brought tears to my eyes. They were tears of pain for what was suffered that day and tears of pride for the bravery, courage and heroism of the men and women in the Pentagon. When I turned to the next article, "Eye in the Sky," my tears continued, but they were tears of joy. The contrast between the two articles was striking. How fitting that we acknowledge the horror of September 11, honoring victims and survivors, and yet appreciate that the world remains full of beauty.

*Stephen R. McAllister*
*Lawrence, Kansas*

### MONTESSORI'S MANNERS

"MADAM MONTESSORI" BROUGHT BACK vivid memories. The year was 1914 and Montessori, a friend and colleague of my father's, was a frequent visitor to our home in Turin, Italy. I was 3 years old, but I remember her presence and her engaging manners. The Montessori Schools were yet to come; nevertheless, at 91-plus years of age, I claim to be the oldest Montessori alumnus.

*Piero P. Foa*
*Detroit, Michigan*

### PRIMATES' PERIL

THINGS HAVE WORSENED SINCE YOU published "No Exit," about our efforts to save orangutans sold on the black market in Indonesia. We currently care for 350 orangutans and daily receive more that have been stranded by the forest fires now burning around Kalimantan. We lack adequate equipment to fight the fires around our stations. The orangutans suffer from the smoke, and more of them have diseases.

*Dr. Willie Smits*
*Balikpapan Orangutan Survival Fdn.*
*Balikpapan, Indonesia*

HOW CAN I SUPPORT WILLIE SMITS' efforts to rescue orangutans?

*Jaye Goodstein*
*Berwyn, Pennsylvania*

**Donations may be made to BOS-USA, P.O. Box 968, Clark, CO 80428 or through the group's Web site, www.orangutan.com. Ed.**

Send letters for this column to LettersEd@simag.si.edu or to **Letters Editor, SMITHSONIAN, MRC 951, P.O. Box 37012, Washington, D.C. 20013-7012.** Please include your telephone number and address. Letters may be edited for clarity and length. Send queries and comments about the Smithsonian Institution to info@si.edu or to VIARC, Public Inquiry Mail Service, P.O. Box 37012, Washington, D.C. 20013-7012.

# I am stronger than diabetes.

FOR PEOPLE WITH TYPE 2 DIABETES

**Avandia®**
rosiglitazone maleate

## "As long as there are stories to share, I'll take care of my diabetes."

"It's our special time—reading together on the porch. Bobby never gets tired of hearing his favorites. I never get tired of seeing him smile. I'm not going to let type 2 diabetes keep me from sharing many more stories with my grandson.

"I've switched to a healthier diet. Even my wife's on it. For exercise, I walk a mile a day but I still needed some help. So my doctor added *Avandia* for my type 2 diabetes. It makes my body more responsive to its own natural insulin, so I can control my blood sugar more effectively.

"My blood sugar levels have improved with *Avandia*. And while not everyone has the same results, I've kept my blood sugar down for over a year. Now that's a great story."

*Avandia*, along with diet and exercise, helps improve blood sugar control. It may be prescribed alone, with Glucophage® (metformin HCl tablets) or with sulfonylureas. When taking *Avandia* with a sulfonylurea, you may be at risk for low blood sugar. Ask your doctor whether you need to lower your sulfonylurea dosage.

Some people may experience tiredness, weight gain or swelling with *Avandia*.

*Avandia* in combination with insulin may increase the risk of serious heart problems. Because of this, talk to your doctor before using *Avandia* and insulin together. *Avandia* may cause fluid retention, or swelling, which could lead to or worsen heart failure, so tell your doctor if you have a history of these conditions. If you experience an unusually rapid increase in weight, swelling or shortness of breath while taking *Avandia*, talk to your doctor immediately. *Avandia* is not for everyone. If you have severe heart failure or active liver disease, *Avandia* is not recommended.

Also, blood tests to check for serious liver problems should be conducted before and during *Avandia* therapy. Tell your doctor if you have liver disease, or if you experience unexplained tiredness, stomach problems, dark urine or yellowing of the skin while taking *Avandia*.

If you are nursing, pregnant or thinking about becoming pregnant, or if you are a premenopausal woman who is not ovulating, talk to your doctor before taking *Avandia*.

**See important patient information on the adjacent page.**

ASK YOUR HEALTHCARE PROFESSIONAL ABOUT
Avandia

FOR MORE INFORMATION CALL
**1-800-AVANDIA** (1-800-282-6342)
OR VISIT WWW.AVANDIA.COM

**AVANDIA®. HELP USE THE NATURAL INSULIN IN YOU.®**

GlaxoSmithKline

© 2002 The GlaxoSmithKline Group of Companies All rights reserved. AVD227RA *Avandia* is a registered trademark of GlaxoSmithKline. *Glucophage* is a registered trademark of LIPHA s.a., licensed to Bristol-Myers Squibb Company.

# Patient Information about AVANDIA® (rosiglitazone maleate) 2 mg, 4 mg, and 8 mg Tablets

**What is *Avandia*?**
*Avandia* is one product in a class of prescription drugs called thiazolidinediones (thigh-a-zol-a-deen-die-owns) or TZDs. It is used to treat type 2 diabetes by helping the body use the insulin that it is already making. *Avandia* comes as pills that can be taken either once a day or twice a day to help improve blood sugar levels.

**How does *Avandia* treat type 2 diabetes?**
If you have type 2 diabetes, your body probably still produces insulin but it is not able to use the insulin efficiently. Insulin is needed to allow sugar to be carried from the bloodstream into many cells of the body for energy. If insulin is not being used correctly, sugar does not enter the cells very well and builds up in the blood. If not controlled, the high blood sugar level can lead to serious medical problems, including kidney damage, blindness and amputation.

*Avandia* helps your body use insulin by making the cells more sensitive to insulin so that the sugar can enter the cell.

**How quickly will *Avandia* begin to work?**
*Avandia* begins to reduce blood sugar levels within 2 weeks. However, since *Avandia* works to address an important underlying cause of type 2 diabetes, insulin resistance, it may take 8 to 12 weeks to see the full effect. If you do not respond adequately to your starting dose of *Avandia*, your physician may increase your daily dose to improve your blood sugar control.

**How should I take *Avandia*?**
Your doctor may tell you to take *Avandia* once a day or twice a day (in the morning and evening). It can be taken with or without meals. Food does not affect how *Avandia* works. To help you remember to take *Avandia*, you may want to take it at the same time every day.

**What if I miss a dose?**
<u>If your doctor has prescribed *Avandia* for use once a day:</u>

- As soon as you remember your missed dose, take one tablet anytime during the day.
- If you forget and go a whole day without taking a dose, don't try to make it up by adding another dose on the following day. Forget about the missed dose and simply follow your normal schedule.

<u>If your doctor has prescribed *Avandia* for use twice a day:</u>

- As soon as you remember the missed dose, take one tablet.
- Take the next dose at the normal time on the same day.
- Don't try to make up a missed dose from the day before.
- You should never take three doses on any single day in order to make up for a missed dose the day before.

**Do I need to test my blood for sugar while using *Avandia*?**
Yes, you should follow your doctor's instructions about your at-home testing schedule.

**Does *Avandia* cure type 2 diabetes?**
Currently there is no cure for diabetes. The only way to avoid the effects of the disease is to maintain good blood sugar control by following your doctor's advice for diet, exercise, weight control, and medication. *Avandia*, alone or in combination with other antidiabetic drugs (i.e., sulfonylureas or metformin), may improve these other efforts by helping your body make better use of the insulin it already produces.

**Can I take *Avandia* with other medications?**
*Avandia* has been taken safely by people using other medications, including other antidiabetic medications, birth control pills, warfarin (a blood thinner), Zantac® (ranitidine, an antiulcer product from GlaxoSmithKline), certain heart medications, and some cholesterol-lowering products. You should discuss with your doctor the most appropriate plan for you. If you are taking prescription or over-the-counter products for your diabetes or for conditions other than diabetes, be sure to tell your doctor. Sometimes a patient who is taking two antidiabetic medications each day can become irritable, lightheaded or excessively tired. Tell your doctor if this occurs; your blood sugar levels may be dropping too low, and the dose of your medication may need to be reduced.

**What should I discuss with my doctor before taking *Avandia*?**
*Avandia* in combination with insulin may increase the risk of serious heart problems. Because of this, talk to your doctor before using *Avandia* and insulin together. *Avandia* may cause fluid retention or swelling which could lead to or worsen heart failure, so tell your doctor if you have a history of these conditions. You should also talk to your doctor if you have liver problems, or if you are nursing, pregnant or thinking of becoming pregnant. If you are a premenopausal woman who is not ovulating, you should know that *Avandia* therapy may result in the resumption of ovulation, which may increase your chances of becoming pregnant. Therefore, you may need to consider birth control options.

**What are the possible side effects of *Avandia*?**
*Avandia* was generally well tolerated in clinical trials. The most common side effects reported by people taking *Avandia* were upper respiratory infection (cold-like symptoms) and headache. As with most other diabetes medications, you may experience an increase in weight. You may also experience edema (swelling) and/or anemia (tiredness). If you experience any swelling of your extremities (e.g., legs, ankles) or tiredness, notify your doctor. Talk to your doctor immediately if you experience edema, shortness of breath, an unusually rapid increase in weight, or other symptoms of heart failure.

**Who should not use *Avandia*?**
You should not take *Avandia* if you are in the later stages of heart failure or if you have active liver disease. The following people should also not take *Avandia*: People with type 1 diabetes, people who experienced yellowing of the skin with Rezulin® (troglitazone, Parke-Davis), people who are allergic to *Avandia* or any of its components and people with diabetic ketoacidosis.

**Why are laboratory tests recommended?**
Your doctor may conduct blood tests to measure your blood sugar control. Blood tests to check for serious liver problems should be conducted before starting *Avandia*, every 2 months during the first year, and periodically thereafter.

It is important that you call your doctor immediately if you experience unexplained symptoms of nausea, vomiting, stomach pain, tiredness, anorexia, dark urine, or yellowing of the skin.

**How should I store *Avandia*?**
*Avandia* should be stored at room temperature in a child-proof container out of the reach of children. Store *Avandia* in its original container.

gsk GlaxoSmithKline

©2001 The GlaxoSmithKline Group of Companies
All rights reserved. Printed in USA. AV0638 August 2001

RICHARD AVEDON

# Unfazed by All the Buzz

**BY ELIZABETH ROYTE**

INDELIBLE IMAGES

RICHARD AVEDON, KNOWN FOR HIS STARK black-and-white photographs of fashion models, artists and intellectuals, set out in 1979 to document the American West. Of his many portraits of cowboys, miners, truckers and other laborers, none got more attention than his picture of a part-time beekeeper named Ronald Fischer, which is part of an exhibition of Avedon portraits currently at the Metropolitan Museum of Art in New York City through January 5.

Fischer was reading a beekeeper's magazine when he came across an ad placed by Avedon. It sought a man or woman "to be photographed with bees by a world-famous photographer," Fischer recalls. A Chicago native who lives in Oak Park, Illinois, where he works as a property manager and still keeps bees, Fischer answered the ad because, he says, he'd always wanted to make a "bee beard," in which a swarm gathers on one's face, attracted by a caged queen bee

worn like a charm around one's neck. "It's just something you do when there's nothing else going on," he explains.

After Fischer mailed a Polaroid of himself, without bees, to Avedon, they arranged to meet in Davis, California, near the home of entomologist Norman E. Gary, whom Fischer had asked to assist at the session. The group convened at a tomato farm, where Avedon hung a large sheet of white paper on the shady side of a barn. Nearby, a quarter million bees mustered inside wire mesh "packages."

**"The highlight of my beekeeping activities," Fischer (above, at a farmers' market) says of the portrait.**

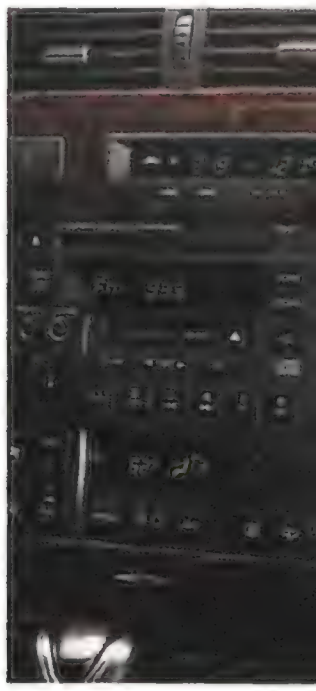
"As soon as I saw the packages I realized those were adults," says Fischer. Bee beards are usually made with 1- to 2-day-old insects, which lack stingers. "It bothered me," he says. "But I figured Gary knew what he was doing. He said not to worry."

Once Fischer got into position, as he remembers it, Avedon said, "Take off your shirt." Fischer complied. "OK, now take off your T-shirt," Avedon said. "Hold on!" Fischer cried, his knees knocking. "What are you doing?" Avedon, using a Deardorff camera with an 8- by 10-inch negative, told Fischer to stand still, because the slightest movement would blur the picture.

Gary dotted queen-bee pheromone—an excretion that marks bees as members of a queen's hive—on Fischer's head and chest. The entomologist then emptied packages of bees onto boards soaked in sugar water and, using a shovel and broom, brushed great scoops of insects into the air. "They picked up my scent and formed a cloud over my head," Fischer says. "I heard this huge buzzing. They started to land on my head, shoulders and neck."

Plick, plick, plick—thousands of bees tickled his skin. They probed his nose. "I snorted to get them out," he says.

DEAN LA PRAIRIE



*Hyundai Advantage™ 10-year, 100,000-mile warranty. See dealer for LIMITED WARRANTY details. ©2002 Hyundai Motor America.

Avedon offered few instructions other than telling Fischer to look straight ahead and avoid smiling.

Avedon selected two prints: the more familiar picture, which he called the "Buddhist" version for its absence of suffering, and the "Christian" version, where Fischer grimaces, evidently in pain. In fact, bees did sting him four times during the hour and a half session.

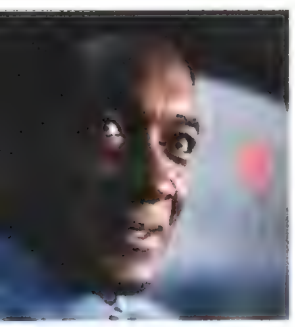
The photograph on page 25, along with 179 others by Avedon, 79, is part of a retrospective show that spans Avedon's 60-year career, during which he photographed all manner of prominent people, from T. S. Eliot to Marilyn Monroe. An associated book, *Richard Avedon: Portraits*, published by Abrams, includes essays by Avedon and the show's curator, Maria Morris Hambourg.

*The Beekeeper* and other portraits from Avedon's American West project are printed up to four feet tall and are signature works, with glowing white backgrounds, shadowless lighting and a sort of emotional blankness. The West photographs, first exhibited and published in 1985, generated controversy. Some critics praised their poignancy and renderings of rugged individualism, but others said the images manipulated and even belittled their subjects, especially those with physical disabilities. "This is a sick collection that expresses Avedon's inner fears and terrifying nightmares," Fred McDarrah wrote at the time in *Photo District News*. Avedon has said, cryptically: "There is no such thing as inaccuracy in a photograph. All photographs are accurate. None of them is the truth."

Fischer isn't stung by the controversy. "I like the picture," he says of his portrait. "Obviously, it was staged; most beekeepers don't *wear* their bees. But it's still a natural picture—it's natural bee behavior. I think those who were against Avedon before . . . are the ones who were most vocal about this picture when it came out."

Nowadays, when Fischer, who is single and chooses not to divulge his age, sells his Vacant Acres honey at a farmers' market in Oak Park ($2.75 for a one-pound jar), he displays a poster of the portrait. Customers like to snap his photograph. No one, Fischer is relieved to say, has asked him to remove his shirt. Twenty-one years later, he has yet to tire of his apiarian fame. Then again, he hasn't felt any urge to make another bee beard either.

*Elizabeth Royte is the author of* The Tapir's Morning Bath: Mysteries of the Tropical Rain Forest and the Scientists Who Are Trying to Solve Them.



HYUNDAI
*Win*

When you let other people into your lane

When you have a backup route

When you use the time to prepare for work

When you use the time to forget about work

When your commute is painless, you win.

The 2003 Hyundai XG350L

Leather seating surfaces. Memory driver's seat.

Automatic climate control.

America's Best Warranty.* All standard.

[ hyundaiUSA.com ]

PHENOMENA & CURIOSITIES

# Requiem for a Heavyweight

## SCIENCE MEETS SHAMANISM AT A GATHERING TO PONDER THE FATE OF THE PACIFIC OCEAN LEATHERBACK

BY JEFF WHEELWRIGHT

Pacific Ocean leatherback turtles (like the one above, in Papua New Guinea) are being wiped out by poaching and industrial fishing.

MIKE PARRY/MINDEN PICTURES

THE SORRY STATE OF THE WORLD'S MOST MASSIVE reptile attracted an impressive list of biologists, environmental advocates and what might be called unaffiliated lovers of nature to the International Leatherback Survival Conference, which turned out to be a curious mixture of science, politics and mysticism. The gathering took place this past spring at a conference center in Pacific Grove, California, near Monterey Bay, whose chill waters attract the leatherbacks each year in late summer. Some turtles swim here from as far away as Samoa, crossing the Pacific Ocean in heroically straight lines. They come to eat jellyfish, although it may be that they migrate to Northern California for additional reasons. Conferees had come from as far away as Malaysia and Costa Rica to express their admiration for the leatherback and their fears for its future. They also wanted to "listen" to the animal, as one put it; others hoped to hear its "song" and seek its "counsel."

If a leatherback had prepared a résumé for the occasion, the document would gleam with superlatives:

The turtle was a contemporary of the dinosaurs. Its direct forebears lived more than 100 million years ago. It typically weighs half a ton and reaches six feet in length. The record-holder leatherback weighed 1,997 pounds and bested nine feet.

Of the seven types of marine turtles, the leatherback is the widest roaming (a year's journey of 7,000 miles has been measured) and the deepest diving (to 3,000 feet).

Like other sea turtles, it nests on tropical or subtropical beaches, but it is the only species to frequent the cold latitudes. It has been spotted as far north as the Aleutian Is-

# In Maine, there's a term for comfort like this: "Wicked Good."

These shearling slippers can be a simple reward after a very long day. Genuine shearling sheepskin wraps your foot in comfort while it draws away moisture and conditions your skin with natural lanolin. You'll feel only softness...no rough seams or cold leather against your skin. No wonder they've earned their unique name. In Men's and Women's styles. *Bean's Wicked Good® Slippers, $44.*

**L.L.Bean®**

FREEPORT, MAINE
SINCE 1912

© 2002 L.L.Bean, Inc.

**FREE CATALOG** Call 1-800-960-2326 or shop online at www.llbean.com

Blessing the sea turtle conference was Indian tribal leader Anne-Marie Sayers (second from right, above, with conferees).

lands and as far south as Tasmania and Chile. "They go where they want to go," said conference participant Frank Paladino of Indiana Purdue University.

Unique among sea turtles, the leatherback, as the name suggests, does not have a shell. Its body is protected by a thick sheath of cartilage, which is impregnated with oil and is waterproof. The animal's back is brownish black with white speckles and is sharply ridged. Each turtle bears a pinkish spot on its forehead. Scientists aren't sure what the spot does, if anything. One scientist referred to it as a "third eye," because a stalk from the animal's brain extends to a point below the spot, where the skull is thinnest. Maybe the spot receives a signal of some sort. "There are a lot of secrets that this animal holds that we haven't got to yet," said James Spotila, a biologist from Drexel University in Philadelphia.

But the leatherback's unfortunate distinction is to be one of the most endangered members of the imperiled sea turtle family. In the Pacific Ocean, where the majority of leatherbacks lived until recently, the population has crashed, from an estimated 90,000 nesting females in 1980 to a mere 3,000 to 5,000 today—the verge of extinction. Globally, the situation is only slightly less grim; in 20 years the number of females has declined from an estimated 115,000 to roughly 30,000.

Before its decline, some biologists had considered the leatherback extinction-proof, precisely because of its cosmopolitan reach. If colonies were wiped out in one part of the world, the thinking went, others would hold their own. But the great turtle is no match for industrial fishing fleets. In longline fishing, baited hooks are strung out behind ships for up to 50 miles. One authority at the conference said that perhaps as many as five million hooks, dangling from 100,000 miles of line, tear through the Pacific Ocean each day. Leatherbacks, attracted to the glowing lights attached to longlines, become entangled in suspended forests of hooks and drown unless they reach the surface to breathe.

Easy prey: just one in four hatchlings live.

On shore, creatures as varied as crabs, herons, raccoons and jaguars prey on leatherback hatchlings as they emerge from the sand and dash to the surf. People on six continents plunder leatherback nests for eggs, despite laws against such poaching, according to conference participants. Beachside condominiums and hotels also wipe out turtle nests. All told, fishing, poaching and development can be devastating. For example, a beach in Mexico called Mexiquillo that used to have 1,500 leatherbacks nest each winter had only 4 last year.

The goal of the conference, which was put on by the Sea Turtle Restoration Project (www.seaturtles.org), a group in Forest Knolls, California, was to come up with ways to save the leatherbacks. Some biologists stressed the importance of protecting the nesting beaches, while environmental activists emphasized restricting fishing in the Pacific. In any event, there's good reason to believe that the trend of leatherback disappearance can be stymied or reversed. In the Caribbean, depleted leatherback populations are on the rebound, thanks to efforts to preserve beach habitats, and leatherbacks plying the Atlantic Ocean also appear to have fared better lately, because of closer regulation of the fisheries. As more than one speaker said: "Choose optimism."

Scientists seldom invoke a higher power in their work, but this meeting started with a Native American blessing. The group gathered outside amid blue-flowering ceanothus bushes. Anne-Marie Sayers, an elder of the Costanoan-Mutsen tribe, asked us to hold hands. One by one, attendees expressed hopes for the conference as they passed an abalone shell containing a clump of burning sage, whose smoke, Sayers explains, is traditionally used so "the eyes may see the truth, the ears may hear the truth, and the mouth may speak the truth."

"Help us to find ways to save our sea turtles," said Spotila, who studies leatherbacks in Costa Rica. Sylvia Earle, a well-known oceanographer based at Deep Ocean Exploration & Research in Oakland, proclaimed: "May turtles live with man in the future as long as they have lived with man in the past." In his lecture, Larry Crowder, a marine biologist at Duke University, quoted the late Archie Carr, a leading marine turtle expert: "'If nothing else, I just want to be there when the last turtle comes ashore,'" he said, his eyes filling with tears.

*Jeff Wheelwright, a California-based writer, is the author of the 2001 book* The Irritable Heart: The Medical Mystery of the Gulf War.

© Nestlé

# Your day.

# Your way.

*Sure, sometimes life spins out of control. But the rich roast flavor and aroma of Taster's Choice® coffee makes it easy to stay on top of things. So you can handle whatever's in your path.*

www.TastersChoice.com

## Advantage You.™

*HOMME DINGER:* A diver tethered to the French vessel *La Carangue* was testing an innovative "Newtsuit" near Porquerolles Island in the Mediterranean Sea when French adventure photographer Philippe Poulet, wearing a mask and snorkel in the water, captured the moment. Decked out in the aluminum suit, divers can descend to depths of more than 1,000 feet without enduring hours of decompression on the way back to the surface. *Pas mal du tout.*

# Lasting Impressions

## SCIENTISTS CAST TALL SHADOWS BUT FIND THEMSELVES HARD PRESSED TO EXPLAIN THE BLUES TO MONGOLIANS

BY DONOVAN WEBSTER

TWO MONGOLIAN CHILDREN, WEARING TRADITIONAL felt tunics and riding shaggy ponies, showed up on the scientists' second day of fieldwork. "They wanted to know one thing," recalls William Fitzhugh. "'Why are you painting our stones blue?'"

This past summer, Fitzhugh, 59, who is chairman of anthropology at the Smithsonian's National Museum of Natural History, and his team convened at Ushkin Uver, an archaeological site in a broad, short-grass valley rimmed by the mountains of north-central Mongolia. (Ushkin Uver translates as Lung Mountain, referring to a perception that the peaks in the distance resemble, in form and color, a sheep's lung—mutton being a dietary staple in these parts.) There, a squared-off, gray granite column rises eight feet out of the sandy soil of the steppe. The stone monolith, 2,500 to 3,000 years old, is inscribed with ancient images of deerlike creatures as well as a series of circles. The top of the shaft bears a mysteriously playful rendering of a human face, its mouth puckered in an artfully rounded O. The pillar is known to scholars as a deer stone, one of about 600 similarly ornamented Bronze Age monoliths representing strange, hybrid hoofed mammals possessed of antlers and duck-bill-like snouts. The ornately embellished monuments, erected by unknown peoples, lie scattered across northern Mongolia and southern Siberia.

But why were scientists painting this one blue?

Fitzhugh explained to the youngsters that the Ushkin Uver specimen is the only deer stone bearing a human likeness. In order to preserve an image of the artifact, which is deteriorating under exposure to the elements, Fitzhugh's team got permission from the Mongolian government to make a museum-grade cast. The blue "paint," Fitzhugh says, was actually liquid latex that would dry to create a rubbery reverse impression of the stone. The latex would pick up every feature, down to the tiniest nick, in the ancient rock. When dry, it would be peeled off and taken to the National Museum of Natural History (NMNH) in Washington, D.C., where a cast could be made and displayed. Fitzhugh assured his audience that the undamaged stone, which the Mongolians regard as the talisman of an ancient heritage, would remain in place. And stay gray.

In mid-July, a precise, eerily imposing replica of the Ushkin Uver stone was unveiled in an exhibit hall at NMNH. "What the heck is that?" many visitors ask before reading a description of the stone: "Across the windswept steppes of northern Mongolia, stone monuments (like this replica) stand in silent tribute to a mysterious past."

"Why," the children asked, "are you painting our stones blue?"

WILLIAM FITZHUGH

"We're very pleased with the results," says the rangy, bespectacled Fitzhugh, sitting at a map-strewn table in his office at the museum's Arctic Studies Center, which he oversees. "Thanks to our exhibits department, the stone has just the right color and heft."

Scientists hypothesize that the deer stone represents a small totem from an embattled culture, the Tsaatan (*tsaat* means "deer"). The Tsaatan are the last remnants of a once-

SEEK AND YE SHALL FIND **noboundaries**

Ford

## EXPLORER

Best in Class Government Crash Test Rating*
Segment Exclusive Safety Canopy™ System**†
Independent Rear Suspension
AdvanceTrac™ Enhanced Stability Control System**
Available Third Row Seating

* 4-STAR DRIVER AND 5-STAR FRONT PASSENGER

† SIDE-CURTAIN AIRBAGS/ROLLOVER SENSOR

** AVAILABLE FEATURES

www.fordvehicles.com

**Researchers (led by reindeer-riding William Fitzhugh) excavated anthropologically puzzling sites and debriefed a shaman.**

thriving community of reindeer herders inhabiting the landscape north of the Ushkin Uver of the Mongolian grasslands. Under increasing pressure from a number of factors, including a reduction in grazing range for reindeer, their population today hovers at a perilously low 500 individuals.

"The Tsaatan are the southernmost reindeer herders on earth," Fitzhugh says. "Global climate change is diminishing the growth of lichens and mosses that feed their reindeer." In addition, the Tsaatan have, over the past several decades, come increasingly in contact with villages and cities. "People find they must abandon the herding life for the economic security of jobs in settlements." At present, Fitzhugh adds, "we're talking about only 40 families or so still living traditionally. We want to document that way of life before change overtakes it."

Starting the summer before last, Fitzhugh and his team of anthropologists, botanists, entomologists, paleoecologists and biologists began making the two-day horseback trip from the nearest Mongolian city, Muren, to spend several weeks with the Tsaatan. They are attempting nothing less than documenting everything from Tsaatan archaeology to contemporary culture. They've even managed to befriend a 96-year-old female shaman, who is sharing her stores of ethnobotanical knowledge, demonstrating the use of plants and roots in traditional medicines. (In addition to the treatments she employs for ailing humans, many of her remedies are also used to treat sick reindeer.)

During last summer's visit, Fitzhugh began excavating a prehistoric burial mound and a 1,300-year-old pit house, unearthing some ancient charcoal—which will more precisely define the early culture, using carbon dating—as well as bones from what appears to be a cremated horse.

In the meantime, the deer stone remains singularly evocative. The pursed lips of the ancient visage, Fitzhugh believes, may depict the rounded mouth of a shaman, perhaps blowing evil spirits away. "Look at the trunk of the stone, dense with depictions of deer or elk, each shown sleeping or leaping into the air," he says. "One scholar, art historian Esther Jacobson at the University of Oregon, believes these images may link the stones with ancient Scythian art in central Asia. There's so much about these artifacts that we don't really know yet."

The back of the stone is equally intriguing. Carved on a monolith at a point that could be considered waist high is the representation of a belt, replete with detailed depictions of Bronze Age tools, an ax, a knife and other implements. "There's nothing like this anywhere else on earth," Fitzhugh says.

He approaches the artifact with a sense of urgency. "The local people recognize the value of their history," he goes on. "But they don't understand the archaeological significance or monetary value of these stones. Several have already disappeared, taken from their sites because they could be great rarities for collectors." Plenty of other threats exist as well. "Frost and cold have spalled some, causing chunks to break off. Livestock rubbing against the monoliths have worn down some of the stones." Fitzhugh adds that he and his team want to help "protect the stones from an increasingly intrusive world beyond the Tsaatan."

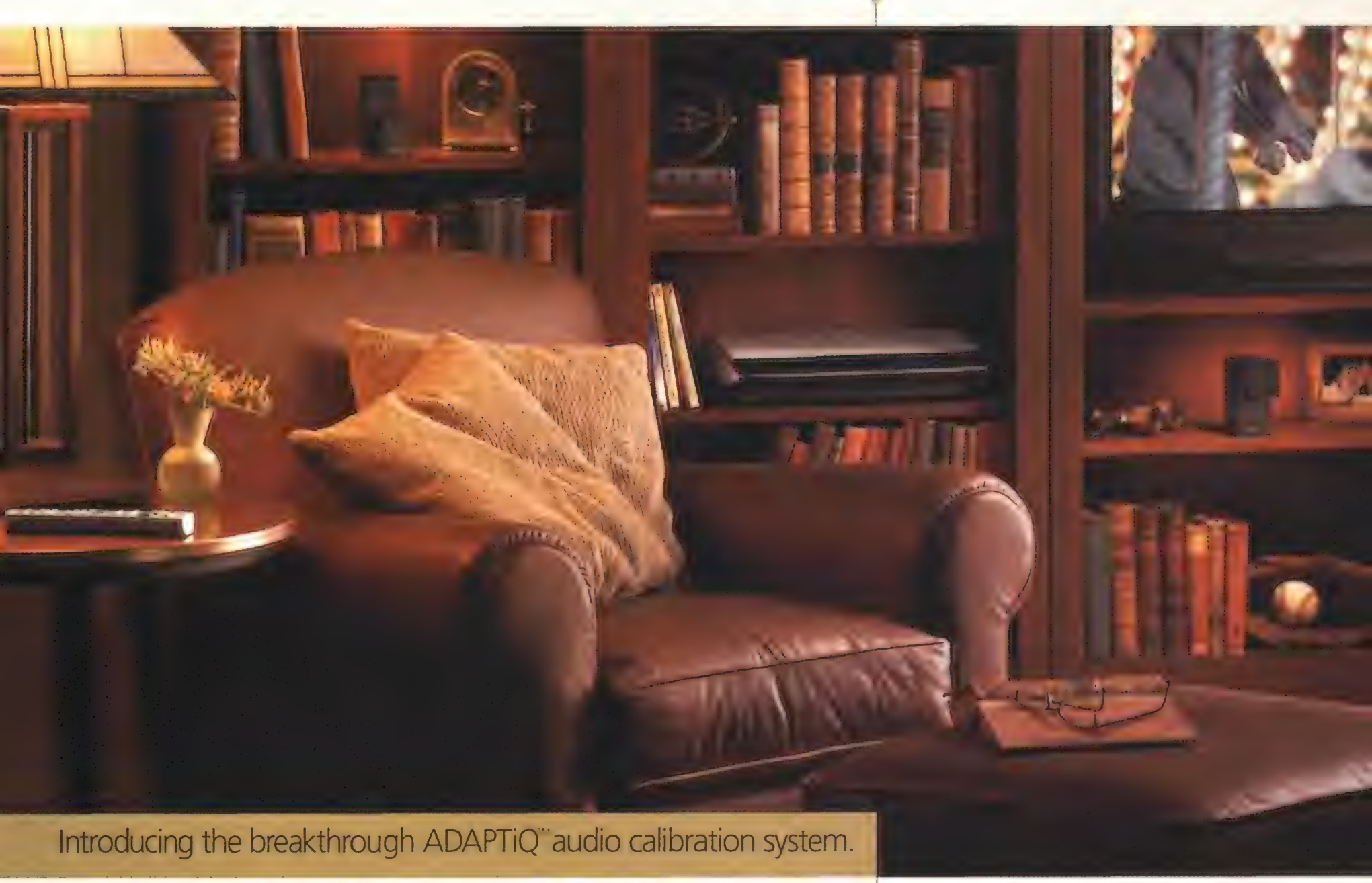
"We're hoping," he says, "that our studies of the Tsaatan will demonstrate links to other Arctic peoples, creating an understanding of a more uniform circum-Arctic culture. The deer stones aren't that different from totem poles and other native art of the American Arctic and the Pacific Northwest. More extensive studies of the Tsaatan, and of the deer stones, may help us make those connections.

"We may be archaeologists studying the past," he says, "but we focus on the future as well, on the survival of the Tsaatan and other threatened far northern cultures."

*Donovan Webster, a freelancer based in Charlottesville, Virginia, recently wrote for* SMITHSONIAN *on the prehistoric art of Baja California.*

WILLIAM FITZHUGH; WILLIAM FITZHUGH COLLECTION

# There are so many reasons to own a Bose® Lifestyle® DVD system. And we've just added a new one.



## Introducing the breakthrough ADAPTiQ™ audio calibration system.

**Customizes sound to your room, so your Lifestyle® DVD system will sound best where it matters most. And it's only from Bose.**

No two rooms sound exactly the same. Where you place your speakers, room size and shape, reflective and absorption qualities...even whether a room has rugs or hardwood floors can affect sound. And until now, there wasn't a simple way for home theater systems to account for these variables. Introducing the new ADAPTiQ audio calibration system, now available in Lifestyle® 35 and 28 DVD home entertainment systems. It listens to the sound in your particular room and automatically adjusts your Lifestyle® system to sound its best. So now, no matter what your room's acoustics, you'll enjoy action-packed movies and lifelike music delivered by a system performing to its fullest potential. The ADAPTiQ system is just one reason you'll enjoy our Lifestyle® systems. Some others: An elegant media center with built-in DVD/CD player. Barely noticeable cube speakers. An Acoustimass® module that produces rich impactful bass. And an advanced universal remote that controls your system – even from another room. Bose Lifestyle® home entertainment systems. Now with the ADAPTiQ system, the height of our technology just got higher.

*Lifestyle® 35 DVD home entertainment system*

**For a FREE information kit, or names of dealers and Bose stores near you call:**

**1.800.ASK.BOSE ext.M33 ask.bose.com/wm33**

BOSE®
Better sound through research®

POINTS OF INTEREST

# Providential Happening

## A FIERY INSTALLATION DRAWS CROWDS IN PROVIDENCE, RHODE ISLAND, ILLUMINATING A "DAYLIGHTING" TREND

BY FRED HAPGOOD

Once covered by bridges and roads, rivers in downtown Providence are now the scene of a fantastical ceremony called WaterFire.

BARNABY EVANS

AT DUSK, A SMALL BLACK BOAT PASSES DOWN A RIVER etched into the city. A crew member, dressed in black, beats slowly on a gong, as if summoning citizens to a sacred duty. Now other black boats appear, whose black-clad crews carry torches. Disks of fire, each about a yard across, blossom on the river's surface like the footsteps of some mythical firebeast. The flames, reaching up from braziers that appear to float on the water, breathe streamers of sparks into the air. Music just past the edge of memory (African drumming, arias from half-forgotten operas, Indian ragas) mixes with the sputter and pop of burning firewood.

Tens of thousands of people line the riverbanks of downtown Providence to witness the curious civic ritual known as WaterFire, an event that occurs almost every other Saturday from April to November and combines avant-garde performance art with a block party. People dance in the street to swing, salsa or tango on some nights, but mostly they watch the mock-mysterious spectacle of bonfires burning in a hundred braziers, most of which rest on submerged floats that are anchored to the river bottom. Seven slow-moving boats make at least ten refueling runs from sundown to 1 A.M.

Depending on one's point of view, the event evokes "the spirit of elemental beauty" or is "a campfire for the whole

# OUR NEW LENSES ARE SO SMART

they can actually tell the difference between light from the sun and light from a bulb.

Introducing the newest Transitions® Lenses: advanced lens technology that enables you to see clearly and comfortably in virtually any light condition.

Indoors, Transitions Lenses are as clear as your regular eyeglasses. But in outdoor light they darken as much as necessary, even getting as dark as sunglasses. And Transitions Lenses provide 100% UV protection.

So tell your eyecare professional that you're interested in making Transitions Lenses your everyday glasses. And find out just how smart a lens can be.

Transitions®

Right in any light®

www.transitions.com

*Transitions* and *Right in any light* are registered trademarks of Transitions Optical, Inc. © 2002 Transitions Optical, Inc.

**Part block party, part solemn rite, WaterFire addresses "the delicate balance between life and death," says creator Evans (above).**

city." What's more, it has played an important role in the revival of downtown, which used to empty out in the evening. Now, on WaterFire nights large crowds fill the city's center. It used to be hard to find anyone enjoying himself on the banks of the Providence River, night or day. Actually, it used to be hard to find the Providence River, which had long since been largely covered over.

WaterFire started as a "fire sculpture installation" by local artist Barnaby Evans, which he first presented in 1994, in the midst of the city's ten-year, $60 million effort to remove the bridges and roadways that had obscured the Providence River and the tributaries that feed it, the Woonasquatucket and Moshassuck Rivers. WaterFire is thus the most flamboyant evidence of what urban planners call "daylighting," the growing practice of restoring long-obscured waterways.

Dozens of U.S. municipalities have completed or are undergoing daylighting projects. Arcata, California, daylighted a creek that became a high school ecology laboratory and the backbone of a pedestrian walkway. Barrington, Illinois, uncovered a creek to create a wetlands for storm water treatment. Kalamazoo, Michigan, uncovered a creek for flood control. Other cities have daylighted waterways to nurture local fish populations, attract people to parks or playing fields, and raise property values.

The common thread of the projects, says Richard Pinkham, a water management specialist who has studied daylighting, is the desire of city officials and residents to return to an earlier, richer relationship with nature, "setting right something we messed up."

A recent study that Pinkham conducted for the Rocky Mountain Institute in Snowmass, Colorado, found that a project typically costs a municipality $1,000 for each linear foot of waterway restored. Planners face numerous obstacles, such as rerouting utility lines and roads, disposing of contaminated soil—and even, as in Providence's case, redirecting the rivers themselves.

Daylighting Providence's rivers has been such a success that practically everyone in the city is eager to take credit for it (including former mayor Vincent "Buddy" Cianci, who was convicted in June for corruption and is now pursuing an appeal). But the prime mover is generally recognized as local architect William Warner, who secured $100,000 in funding in 1982 to study the "fantasy" (his term) of restoring the abused waterways. By the middle of the 20th century, Providence's rivers had become so fouled by sewage and industrial waste that the city decked them over with highways and parking lots, creating what some observers derisively called the world's widest bridge. Opening the rivers, Warner argued, would create a cityscape as friendly to pedestrians as it had been to cars. He formed a group of civic leaders, which regaled city officials and others with slide shows of what the riverfront might look like if the rivers were exposed.

The largest urban renewal project in the city's history involved rerouting automobile traffic and building 12 new bridges. A downstream post office at the junction of the Woonasquatucket and Moshassuck Rivers could not be moved, so the rivers were redirected. "We basically just picked up the confluence and moved it 150 yards east," Warner says.

As it happened, Evans, the artist, created his second fire installation at an arts festival in 1996, around the time of the daylighting project's completion. Then he kept hearing from residents who wanted to see the piece again; it was as though they'd never noticed the rivers before, he recalls. A nonprofit group, WaterFire Providence, was started to continue staging the event. Its budget this year is more than $1 million, with money from the city and state governments, corporations, foundations—and fans. The event, the *Providence Journal* editorialized in 1997, is the most popular work of art in the city's history.

Does WaterFire mean anything in particular? Is it a take-off on a religious rite? A commentary on the lack of meaningful ritual in American life? Evans says it's open to interpretation. "It is a ritual and a ceremony that refers to scores of religious festivals, as well as contemporary art," he says. "But I didn't want all that symbolism to get in the way of someone enjoying it simply for the beauty of it."

The music, emanating from invisible loudspeakers alongside the rivers, seems to come not from a single point but from all of Providence, as if the city were one instrument. The heat from the fires, the cedar smoke and the rhythms and chants seem to transport visitors to another time and place. Around midnight, after the crowds have drifted away, people still sit by the riverbanks, staring into the flames. Not until the fires die do they seem to rediscover themselves, shake themselves out and head for home.

*Fred Hapgood is a freelance writer based in Boston.*

CATHERINE KARNOW

# DID YOU KNOW: PRAVACHOL IS THE ONLY CHOLESTEROL LOWERING DRUG PROVEN TO HELP PREVENT BOTH FIRST AND SECOND HEART ATTACK.

Landmark clinical studies involving more than 20,000 people show:
For people with high cholesterol or heart disease,
Pravachol, with diet, is the only cholesterol lowering drug proven
to do this much to help protect your heart.

When diet and exercise aren't enough,

## ask your doctor if Pravachol is right for you.

**IMPORTANT SAFETY INFORMATION:** Pravachol® (pravastatin sodium), a prescription drug, is not for everyone, including women who are pregnant or nursing or may become pregnant, or people with liver problems. And because serious side effects can result, tell your doctor about any unexplained muscle pain or weakness you experience while on Pravachol, and about any other medications you are taking. Your doctor may do blood tests to check for liver problems. Some mild side effects, such as slight rash or stomach upset, occur in 2-4% of patients.

## IT'S ALL IN THE PROOF.

PRAVACHOL®
pravastatin sodium 40 mg tablets

Please see important product information on following page.

1-877-PRAVA-CALL

Bristol-Myers Squibb Company
Princeton, NJ 08543 U.S.A.

D3-K0110

www.pravachol.com

# PRAVACHOL®

**Rx only**

## (pravastatin sodium) Tablets

*Brief Summary of Prescribing Information. For complete prescribing information, please consult official package circular.*

**CONTRAINDICATIONS:** Hypersensitivity to any component of this medication. Active liver disease or unexplained, persistent elevations in liver function tests (see **WARNINGS**). *Pregnancy and lactation.* Atherosclerosis is a chronic process and discontinuation of lipid-lowering drugs during pregnancy should have little impact on the outcome of long-term therapy of primary hypercholesterolemia. Cholesterol and other products of cholesterol biosynthesis are essential components for fetal development (including synthesis of steroids and cell membranes). Since HMG-CoA reductase inhibitors decrease cholesterol synthesis and possibly the synthesis of other biologically active substances derived from cholesterol, they are contraindicated during pregnancy and in nursing mothers. **Pravastatin should be administered to women of childbearing age only when such patients are highly unlikely to conceive and have been informed of the potential hazards.** If the patient becomes pregnant while taking this class of drug, therapy should be discontinued immediately and the patient apprised of the potential hazard to the fetus (see **PRECAUTIONS: Pregnancy**).

**WARNINGS: Liver Enzymes:** HMG-CoA reductase inhibitors, like some other lipid-lowering therapies, have been associated with biochemical abnormalities of liver function. In three long-term (4.8-5.9 years), placebo-controlled clinical trials (WOS, LIPID, CARE; see **CLINICAL PHARMACOLOGY: Clinical Studies**), 19,592 subjects (19,768 randomized), were exposed to pravastatin or placebo. In an analysis of serum transaminase values (ALT, AST), incidences of marked abnormalities were compared between the pravastatin and placebo treatment groups; a marked abnormality was defined as a post-treatment test value greater than three times the upper limit of normal for subjects with pretreatment values less than or equal to the upper limit of normal, or four times the pretreatment value for subjects with pretreatment values greater than the upper limit of normal but less than 1.5 times the upper limit of normal. Marked abnormalities of ALT or AST occurred with similar low frequency (≤1.2%) in both treatment groups. Overall, clinical trial experience showed that liver function test abnormalities observed during pravastatin therapy were usually asymptomatic, not associated with cholestasis, and did not appear to be related to treatment duration. **It is recommended that liver function tests be performed prior to the initiation of therapy, prior to the elevation of the dose, and when otherwise clinically indicated.** Active liver disease or unexplained persistent transaminase elevations are contraindications to the use of pravastatin (see **CONTRAINDICATIONS**). Caution should be exercised when pravastatin is administered to patients who have a recent history of liver disease, have signs that may suggest liver disease (e.g., unexplained aminotransferase elevations, jaundice), or are heavy users of alcohol (see **CLINICAL PHARMACOLOGY: Pharmacokinetics/Metabolism**). Such patients should be closely monitored, started at the lower end of the recommended dosing range, and titrated to the desired therapeutic effect. Patients who develop increased transaminase levels or signs and symptoms of liver disease should be monitored with a second liver function evaluation to confirm the finding and be followed thereafter with frequent liver function tests until the abnormality(ies) return to normal. Should an increase in AST or ALT of three times the upper limit of normal or greater persist, withdrawal of pravastatin therapy is recommended. **Skeletal Muscle: Rare cases of rhabdomyolysis with acute renal failure secondary to myoglobinuria have been reported with pravastatin and other drugs in this class.** Uncomplicated myalgia has also been reported in pravastatin-treated patients (see **ADVERSE REACTIONS**). Myopathy, defined as muscle aching or muscle weakness in conjunction with increases in creatine phosphokinase (CPK) values to greater than 10 times the upper normal limit, was rare (<0.1%) in pravastatin clinical trials. Myopathy should be considered in any patient with diffuse myalgias, muscle tenderness or weakness, and/or marked elevation of CPK. Patients should be advised to report promptly unexplained muscle pain, tenderness or weakness, particularly if accompanied by malaise or fever. **Pravastatin therapy should be discontinued if markedly elevated CPK levels occur or myopathy is diagnosed or suspected. Pravastatin therapy should also be temporarily withheld in any patient experiencing an acute or serious condition predisposing to the development of renal failure secondary to rhabdomyolysis, e.g., sepsis; hypotension; major surgery; trauma; severe metabolic, endocrine, or electrolyte disorders; or uncontrolled epilepsy.** The risk of myopathy during treatment with another HMG-CoA reductase inhibitor is increased with concurrent therapy with either erythromycin, cyclosporine, niacin, or fibrates. However, neither myopathy nor significant increases in CPK levels have been observed in three reports involving a total of 100 post-transplant patients (24 renal and 76 cardiac) treated for up to two years concurrently with pravastatin 10-40 mg and cyclosporine. Some of these patients also received other concomitant immunosuppressive therapies. Further, in clinical trials involving small numbers of patients who were treated concurrently with pravastatin and niacin, there were no reports of myopathy. Also, myopathy was not reported in a trial of combination pravastatin (40 mg/day) and gemfibrozil (1200 mg/day), although 4 of 75 patients on the combination showed marked CPK elevations versus one of 73 patients receiving placebo. There was a trend toward more frequent CPK elevations and patient withdrawals due to musculoskeletal symptoms in the group receiving combined treatment as compared with the groups receiving placebo, gemfibrozil, or pravastatin monotherapy (see **PRECAUTIONS: Drug Interactions**). **The use of fibrates alone may occasionally be associated with myopathy. The combined use of pravastatin and fibrates should be avoided unless the benefit of further alterations in lipid levels is likely to outweigh the increased risk of this drug combination.**

**PRECAUTIONS: General:** PRAVACHOL may elevate creatine phosphokinase and transaminase levels (see **ADVERSE REACTIONS**). This should be considered in the differential diagnosis of chest pain in a patient on therapy with pravastatin. *Homozygous Familial Hypercholesterolemia.* Pravastatin has not been evaluated in patients with rare homozygous familial hypercholesterolemia. In this group of patients, it has been reported that HMG-CoA reductase inhibitors are less effective because the patients lack functional LDL receptors. *Renal Insufficiency.* A single 20 mg oral dose of pravastatin was administered to 24 patients with varying degrees of renal impairment (as determined by creatinine clearance). No effect was observed on the pharmacokinetics of pravastatin or its 3α-hydroxy isomeric metabolite (SQ 31,906). A small increase was seen in mean AUC values and half-life ($t_{1/2}$) for the inactive enzymatic ring hydroxylation metabolite (SQ 31,945). Given this small sample size, the dosage administered, and the degree of individual variability, patients with renal impairment who are receiving pravastatin should be closely monitored. **Information for Patients:** Patients should be advised to report promptly unexplained muscle pain, tenderness or weakness, particularly if accompanied by malaise or fever (see **WARNINGS: Skeletal Muscle**). **Drug Interactions:** ***Immunosuppressive Drugs, Gemfibrozil, Niacin (Nicotinic Acid), Erythromycin:*** See **WARNINGS: Skeletal Muscle**. *Cytochrome P450 3A4 Inhibitors: In vitro and in vivo* data indicate that pravastatin is not metabolized by cytochrome P450 3A4 to a clinically significant extent. This has been shown in studies with known cytochrome P450 3A4 inhibitors (see diltiazem and itraconazole below). Other examples of cytochrome P450 3A4 inhibitors include ketoconazole, mibefradil, and erythromycin. *Diltiazem* – Steady-state levels of diltiazem (a known, weak inhibitor of P450 3A4) had no effect on the pharmacokinetics of pravastatin. In this study, the AUC and $C_{max}$ of another HMG-CoA reductase inhibitor which is known to be metabolized by cytochrome P450 3A4 increased by factors of 3.6 and 4.3, respectively. *Itraconazole* – The mean AUC and $C_{max}$ for pravastatin were increased by factors of 1.7 and 2.5, respectively, when given with itraconazole (a potent P450 3A4 inhibitor which also inhibits p-glycoprotein transport) as compared to placebo. The mean $t_{1/2}$ was not affected by itraconazole, suggesting that the relatively small increases in $C_{max}$ and AUC were due solely to increased bioavailability rather than a decrease in clearance, consistent with inhibition of p-glycoprotein transport by itraconazole. This drug transport system is thought to affect bioavailability and excretion of HMG-CoA reductase inhibitors, including pravastatin. The AUC and $C_{max}$ of another HMG-CoA reductase inhibitor which is known to be metabolized by cytochrome P450 3A4 increased by factors of 19 and 17, respectively, when given with itraconazole. *Antipyrine:* Since concomitant administration of pravastatin had no effect on the clearance of antipyrine, interactions with other drugs metabolized via the same hepatic cytochrome isozymes are not expected. *Cholestyramine/Colestipol:* Concomitant administration resulted in an approximately 40 to 50% decrease in the mean AUC of pravastatin. However, when pravastatin was administered 1 hour before or 4 hours after cholestyramine or 1 hour before colestipol and a standard meal, there was no clinically significant decrease in bioavailability or therapeutic effect. (See **DOSAGE AND ADMINISTRATION: Concomitant Therapy.**) *Warfarin:* Concomitant administration of 40 mg pravastatin had no clinically significant effect on prothrombin time when administered in a study to normal elderly subjects who were stabilized on warfarin. *Cimetidine:* The $AUC_{0\text{-}12\ hr}$ for pravastatin when given with cimetidine was not significantly different from the AUC for pravastatin when given alone. A significant difference was observed between the AUC's for pravastatin when given with cimetidine compared to when administered with antacid. *Digoxin:* In a crossover trial involving 18 healthy male subjects given 20 mg pravastatin and 0.2 mg digoxin concurrently for 9 days, the bioavailability parameters of digoxin were not affected. The AUC of pravastatin tended to increase, but the overall bioavailability of pravastatin plus its metabolites SQ 31,906 and SQ 31,945 was not altered. *Cyclosporine:* Some investigators have measured cyclosporine levels in patients on pravastatin (up to 20 mg), and to date, these results indicate no clinically meaningful elevations in cyclosporine levels. In one single-dose study, pravastatin levels were found to be increased in cardiac transplant patients receiving cyclosporine. *Gemfibrozil:* In a crossover study in 20 healthy male volunteers given concomitant single doses of pravastatin and gemfibrozil, there was a significant decrease in urinary excretion and protein binding of pravastatin. In addition, there was a significant increase in AUC, $C_{max}$, and $T_{max}$ for the pravastatin metabolite SQ 31,906. Combination therapy with pravastatin and gemfibrozil is generally not recommended. (See **WARNINGS: Skeletal Muscle**.) In interaction studies with *aspirin, antacids* (1 hour prior to PRAVACHOL), *cimetidine, nicotinic acid,* or *probucol,* no statistically significant differences in bioavailability were seen when PRAVACHOL was administered. **Endocrine Function:** HMG-CoA reductase inhibitors interfere with cholesterol synthesis and lower circulating cholesterol levels and, as such, might theoretically blunt adrenal or gonadal steroid hormone production. Results of clinical trials with pravastatin in males and post-menopausal females were inconsistent with regard to possible effects of the drug on basal steroid hormone levels. In a study of 21 males, the mean testosterone response to human chorionic gonadotropin was significantly reduced ($p<0.004$) after 16 weeks of treatment with 40 mg of pravastatin. However, the percentage of patients showing a ≥50% rise in plasma testosterone after human chorionic gonadotropin stimulation did not change significantly after therapy in these patients. The effects of HMG-CoA reductase inhibitors on spermatogenesis and fertility have not been studied in adequate numbers of patients. The effects, if any, of pravastatin on the pituitary-gonadal axis in pre-menopausal females are unknown. Patients treated with pravastatin who display clinical evidence of endocrine dysfunction should be evaluated appropriately. Caution should also be exercised if an HMG-CoA reductase inhibitor or other agent used to lower cholesterol levels is administered to patients also receiving other drugs (e.g., ketoconazole, spironolactone, cimetidine) that may diminish the levels or activity of steroid hormones. **CNS Toxicity:** CNS vascular lesions, characterized by perivascular hemorrhage and edema and mononuclear cell infiltration of perivascular spaces, were seen in dogs treated with pravastatin at a dose of 25 mg/kg/day. These effects in dogs were observed at approximately 59 times the human dose of 80 mg/day, based on AUC. Similar CNS vascular lesions have been observed with several other drugs in this class. A chemically similar drug in this class produced optic nerve degeneration (Wallerian degeneration of retinogeniculate fibers) in clinically normal dogs in a dose-dependent fashion starting at 60 mg/kg/day, a dose that produced mean plasma drug levels about 30 times higher than the mean drug level in humans taking the highest recommended dose (as measured by total enzyme inhibitory activity). This same drug also produced vestibulocochlear Wallerian-like degeneration and retinal ganglion cell chromatolysis in dogs treated for 14 weeks at 180 mg/kg/day, a dose which resulted in a mean plasma drug level similar to that seen with the 60 mg/kg/day dose. **Carcinogenesis, Mutagenesis, Impairment of Fertility:** Please see Full Prescribing Information. **Pregnancy: Pregnancy Category X.** See **CONTRAINDICATIONS**. Safety in pregnant women has not been established. Pravastatin was not teratogenic in rats at doses up to 1000 mg/kg daily or in rabbits at doses of up to 50 mg/kg daily. These doses resulted in 10x (rabbit) or 120x (rat) the human exposure based on surface area ($mg/meter^2$). Rare reports of congenital anomalies have been received following intrauterine exposure to other HMG-CoA reductase inhibitors. In a review[1] of approximately 100 prospectively followed pregnancies in women exposed to simvastatin or lovastatin, the incidences of congenital anomalies, spontaneous abortions and fetal deaths/stillbirths did not exceed what would be expected in the general population. The number of cases is adequate only to exclude a three-to-four-fold increase in congenital anomalies over the background incidence. In 89% of the prospectively followed pregnancies, drug treatment was initiated prior to pregnancy and was discontinued at some point in the first trimester when pregnancy was identified. As safety in pregnant women has not been established and there is no apparent benefit to therapy with PRAVACHOL (pravastatin sodium) during pregnancy (see **CONTRAINDICATIONS**), treatment should be immediately discontinued as soon as pregnancy is recognized. PRAVACHOL should be administered to women of child-bearing potential only when such patients are highly unlikely to conceive and have been informed of the potential hazards. **Nursing Mothers:** A small amount of pravastatin is excreted in human breast milk. Because of the potential for serious adverse reactions in nursing infants, women taking PRAVACHOL should not nurse (see **CONTRAINDICATIONS**). **Pediatric Use:** Safety and effectiveness in individuals less than 18 years old have not been established. Hence, treatment in patients less than 18 years old is not recommended at this time. **Geriatric Use:** Two secondary prevention trials with pravastatin (CARE and LIPID) included a total of 6,593 subjects treated with pravastatin 40 mg for periods ranging up to 6 years. Across these two studies, 36.1% of pravastatin subjects were aged 65 and older and 0.8% were aged 75 and older. The beneficial effect of pravastatin in elderly subjects in reducing cardiovascular events and in modifying lipid profiles was similar to that seen in younger subjects. The adverse event profile in the elderly was similar to that in the overall population. Other reported clinical experience has not identified differences in responses to pravastatin between elderly and younger patients. Mean pravastatin AUCs are slightly (25-50%) higher in elderly subjects than in healthy young subjects, but mean $C_{max}$, $T_{max}$ and $t_{1/2}$ values are similar in both age groups and substantial accumulation of pravastatin would not be expected in the elderly (see **CLINICAL PHARMACOLOGY: Pharmacokinetics/Metabolism**).

**ADVERSE REACTIONS:** Pravastatin is generally well tolerated; adverse reactions have usually been mild and transient. In 4-month long placebo-controlled trials, 1.7% of pravastatin-treated patients and 1.2% of placebo-treated patients were discontinued from treatment because of adverse experiences attributed to study drug therapy; this difference was not statistically significant. (See also **PRECAUTIONS: Geriatric Use** section.)

**Adverse Clinical Events: Short-Term Controlled Trials:** All adverse clinical events (regardless of attribution) reported in more than 2% of pravastatin-treated patients in placebo-controlled trials of up to four months duration are identified in the table below; also shown are the percentages of patients in whom these medical events were believed to be related or possibly related to the drug:

**Adverse Events in >2 Percent of Patients Treated with Pravastatin 10-40 mg in Short-Term Placebo-Controlled Trials**

| | All Events | | Events Attributed to Study Drug | |
|---|---|---|---|---|
| **Body System/Event** | **Pravastatin (N = 900) % of patients** | **Placebo (N = 411) % of patients** | **Pravastatin (N = 900) % of patients** | **Placebo (N = 411) % of patients** |
| *Cardiovascular* | | | | |
| Cardiac Chest Pain | 4.0 | 3.4 | 0.1 | 0.0 |
| *Dermatologic* | | | | |
| Rash | 4.0* | 1.1 | 1.3 | 0.9 |
| *Gastrointestinal* | | | | |
| Nausea/Vomiting | 7.3 | 7.1 | 2.9 | 3.4 |
| Diarrhea | 6.2 | 5.6 | 2.0 | 1.9 |
| Abdominal Pain | 5.4 | 6.9 | 2.0 | 3.9 |
| Constipation | 4.0 | 7.1 | 2.4 | 5.1 |
| Flatulence | 3.3 | 3.6 | 2.7 | 3.4 |
| Heartburn | 2.9 | 1.9 | 2.0 | 0.7 |
| *General* | | | | |
| Fatigue | 3.8 | 3.4 | 1.9 | 1.0 |
| Chest Pain | 3.7 | 1.9 | 0.3 | 0.2 |
| Influenza | 2.4* | 0.7 | 0.0 | 0.0 |
| *Musculoskeletal* | | | | |
| Localized Pain | 10.0 | 9.0 | 1.4 | 1.5 |
| Myalgia | 2.7 | 1.0 | 0.6 | 0.0 |
| *Nervous System* | | | | |
| Headache | 6.2 | 3.9 | 1.7* | 0.2 |
| Dizziness | 3.3 | 3.2 | 1.0 | 0.5 |
| *Renal/Genitourinary* | | | | |
| Urinary Abnormality | 2.4 | 2.9 | 0.7 | 1.2 |
| *Respiratory* | | | | |
| Common Cold | 7.0 | 6.3 | 0.0 | 0.0 |
| Rhinitis | 4.0 | 4.1 | 0.1 | 0.0 |
| Cough | 2.6 | 1.7 | 0.1 | 0.0 |

*Statistically significantly different from placebo.

The safety and tolerability of PRAVACHOL at a dose of 80 mg in two controlled trials with a mean exposure of 8.6 months was similar to that of PRAVACHOL at lower doses except that 4 out of 464 patients taking 80 mg of pravastatin had a single elevation of CK >10x ULN compared to 0 out of 115 patients taking 40 mg of pravastatin.

**Long-Term Controlled Morbidity and Mortality Trials:** Adverse event data were pooled from seven double-blind, placebo-controlled trials (West of Scotland Coronary Prevention study [WOS]; Cholesterol and Recurrent Events study [CARE]; Long-term Intervention with Pravastatin in Ischemic Disease study [LIPID]; Pravastatin Limitation of Atherosclerosis in the Coronary Arteries study [PLAC I]; Pravastatin, Lipids and Atherosclerosis in the Carotids study [PLAC II]; Regression Growth Evaluation Statin Study [REGRESS]; and Kuopio Atherosclerosis Prevention Study [KAPS]) involving a total of 10,764 patients treated with pravastatin 40 mg and 10,719 patients treated with placebo. The safety and tolerability profile in the pravastatin group was comparable to that of the placebo group. Patients were exposed to pravastatin for a mean of 4.0 to 5.1 years in WOS, CARE, and LIPID and 1.9 to 2.9 years in PLAC I, PLAC II, KAPS, and REGRESS. In these long-term trials, the most common reasons for discontinuation were mild, non-specific gastrointestinal complaints. Collectively, these seven trials represent 47,613 patient-years of exposure to pravastatin. Events believed to be of probable, possible, or uncertain relationship to study drug, occurring in at least 1% of patients treated with pravastatin in these studies are identified as follows: **Adverse Events in ≥1 Percent of Patients Treated with Pravastatin 40 mg in Long-Term Placebo-Controlled Trials [Pravastatin (N = 10,764) % of patients vs. Placebo (N = 10,719) % of patients] in each Body System/Event** *Cardiovascular:* Angina Pectoris (3.1 vs. 3.4); *Dermatologic:* Rash (2.1 vs. 2.2); *Gastrointestinal:* Dyspepsia/Heartburn (3.5 vs. 3.7); Abdominal Pain (2.4 vs. 2.5); Nausea/Vomiting (1.6 vs. 1.6); Flatulence (1.2 vs. 1.1); Constipation (1.2 vs. 1.3); *General:* Fatigue (3.4 vs. 3.3); Chest Pain (2.6 vs. 2.6); *Musculoskeletal:* Musculoskeletal Pain (includes arthralgia) (6.0 vs. 5.8); Muscle Cramp (2.0 vs. 1.8); Myalgia (1.4 vs. 1.4); *Nervous System:* Dizziness (2.2 vs. 2.1); Headache (1.9 vs. 1.8); Sleep Disturbance (1.0 vs. 0.9); Depression (1.0 vs. 1.0); Anxiety/Nervousness (1.0 vs. 1.2); *Renal/Genitourinary:* Urinary Abnormality (includes dysuria, frequency, nocturia) (1.0 vs. 0.8); *Respiratory:* Dyspnea (1.6 vs. 1.6); Upper Respiratory Infection (1.3 vs. 1.3); Cough (1.0 vs. 1.0); *Special Senses:* Vision Disturbance (includes blurred vision, diplopia) (1.6 vs. 1.3).

Events of probable, possible, or uncertain relationship to study drug that occurred in <1.0% of pravastatin-treated patients in the long-term trials included the following; frequencies were similar in placebo-treated patients: *Dermatologic:* pruritus, dermatitis, dryness of skin, scalp hair abnormality (including alopecia), urticaria. *Endocrine/Metabolic:* sexual dysfunction, libido change. *Gastrointestinal:* decreased appetite. *General:* fever, flushing. *Immunologic:* allergy, edema head/neck. *Musculoskeletal:* muscle weakness. *Nervous System:* paresthesia, vertigo, insomnia, memory impairment, tremor, neuropathy (including peripheral neuropathy). *Special Senses:* lens opacity, taste disturbance. **Postmarketing Experience:** In addition to the events reported above, as with other drugs in this class, the following events have been reported rarely during postmarketing experience with PRAVACHOL (pravastatin sodium), regardless of causality assessment: *Musculoskeletal:* myopathy, rhabdomyolysis. *Nervous System:* dysfunction of certain cranial nerves (including alteration of taste, impairment of extraocular movement, facial paresis), peripheral nerve palsy. *Hypersensitivity:* anaphylaxis, lupus erythematosus-like syndrome, polymyalgia rheumatica, dermatomyositis, vasculitis, purpura, hemolytic anemia, positive ANA, ESR increase, arthritis, arthralgia, asthenia, photosensitivity, chills, malaise, toxic epidermal necrolysis, erythema multiforme, including Stevens-Johnson syndrome. *Gastrointestinal:* pancreatitis, hepatitis, including chronic active hepatitis, cholestatic jaundice, fatty change in liver, cirrhosis, fulminant hepatic necrosis, hepatoma. *Dermatologic:* A variety of skin changes (e.g., nodules, discoloration, dryness of mucous membranes, changes to hair/nails). *Reproductive:* gynecomastia. *Laboratory Abnormalities:* elevated alkaline phosphatase, and bilirubin; thyroid function abnormalities. **Laboratory Test Abnormalities:** Increases in serum transaminase (ALT, AST) values and CPK have been observed (see **WARNINGS**). Transient, asymptomatic eosinophilia has been reported. Eosinophil counts usually returned to normal despite continued therapy. Anemia, thrombocytopenia, and leukopenia have been reported with HMG-CoA reductase inhibitors. **Concomitant Therapy:** Pravastatin has been administered concurrently with cholestyramine, colestipol, nicotinic acid, probucol and gemfibrozil. Preliminary data suggest that the addition of either probucol or gemfibrozil to therapy with lovastatin or pravastatin is **not** associated with greater reduction in LDL-cholesterol than that achieved with lovastatin or pravastatin alone. No adverse reactions unique to the combination or in addition to those previously reported for each drug alone have been reported. Myopathy and rhabdomyolysis (with or without acute renal failure) have been reported when another HMG-CoA reductase inhibitor was used in combination with immunosuppressive drugs, gemfibrozil, erythromycin, or lipid-lowering doses of nicotinic acid. Concomitant therapy with HMG-CoA reductase inhibitors and these agents is generally not recommended. (See **WARNINGS: Skeletal Muscle** and **PRECAUTIONS: Drug Interactions**.)

**OVERDOSAGE:** To date, there has been limited experience with overdosage of pravastatin. If an overdose occurs, it should be treated symptomatically with laboratory monitoring and supportive measures should be instituted as required. (See **WARNINGS**.)

**REFERENCE:** [1]Manson JM, Freyssinges C, Ducrocq MB, Stephenson WP. Postmarketing Surveillance of Lovastatin and Simvastatin Exposure During Pregnancy. *Reproductive Toxicology* 10(6):439-446, 1996.

D3-B001A-07-02
5154DIM19

Bristol-Myers Squibb Company
Princeton, NJ 08543 U.S.A.

Revised July 2002

PHILLIPE RUALT

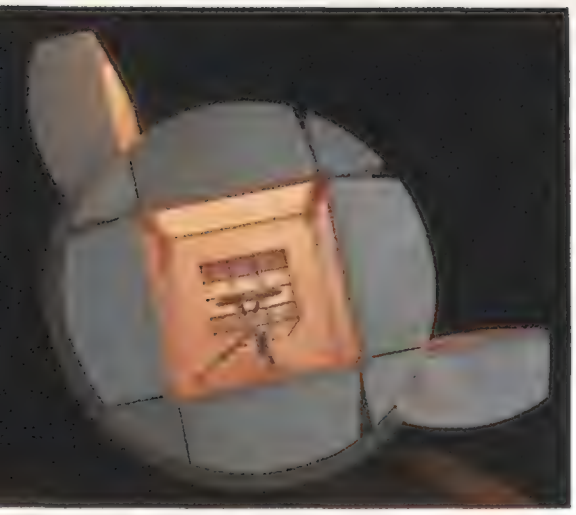
Visitors to The Hotel in Lucerne, Switzerland, sleep under the stars (here, Peter Weller and Chiara Caselli in *Beyond the Clouds*, 1995).

# Global Guest Quarters

YOU MIGHT SAY SOPHIE CALLE TAKES ARTISTIC license to extremes. In the 1980s, she got a job at a hotel, ostensibly as a chambermaid, in order to spy on the guests. Calle entered the rooms to photograph the occupants' possessions. She then exhibited the photographs, along with essays she wrote about her subjects' lives as she imagined them, based on her perusal of their belongings. By focusing on salient details—a pair of shoes, a half-eaten croissant—Calle says, she observed "lives which remained unknown to me."

AROUND THE MALL

Six examples of Calle's voyeuristic vision—photographs from a location she refers to as "Hotel C" in Venice—are among the quirkier offerings included in "New Hotels for Global Nomads," an exhibition at the Smithsonian's Cooper-Hewitt, National Design Museum in New York. The sprawling show, on display through March 2, 2003, examines



**Far afield: prototype capsule could house tourists in space.**

modern hotels worldwide using digital imagery and installations that re-create hotel chambers down to the TV zapper.

In addition to exploring the world's tallest hotel, the Burj al-Arab, a soaring 960-foot-tall structure looking out over the Arab Gulf in Dubai, "Global Nomads" offers installations of all persuasions—from no-frills to nirvana. Even the budget-conscious might think twice about staying in one of Japan's "capsule hotel" rooms, 36- by 71- by 39-inch plastic sleeping modules containing a single bed. At the opposite end of the spectrum are the unabashedly tony digs created by designer Philippe Starck for the Sanderson and the St. Martins Lane, boutique hotels in London. Easily the most dramatic rooms are to be found at The Hotel (page 43), in Lucerne, Switzerland, where guest rooms feature cinema stills on the ceilings.

"I like to think," says exhibitions curator Donald Albrecht, "that this show is exactly like a small hotel—which means every visitor should come prepared for a pleasant surprise."

*—Donovan Webster*

## Powwow on the Potomac

After applying black and white lightning bolts to his face, Larry Yazzie pumps his arms, then does a few quick squats. "I can feel my blood start to flow," he says, "my energy starting to come out."

Yazzie, a 35-year-old Meskwaki-Navajo powwow champion whose day job is baggage handler for Northwest Airlines in Minneapolis, was preparing to do battle—on the dance floor. The occasion was the first-ever Powwow on the National Mall, hosted on a drizzly autumn weekend by the National Museum of the American Indian (NMAI) in Washington, D.C. Spectators crammed into an open-air tent to catch a rare glimpse of this tradition, a gathering heavily dependent on rib-rattling drumming and almost nonstop communal dancing. Yazzie had spent an hour in the wings, outfitting himself in the costume he calls his Saturday Night Special, an ensemble encrusted in ribbons, beadwork and feathers. "I like neon colors that stand out in a contest," he says.

More than 400 men, women and children convened from across the country to celebrate Native American cultures and to compete for the more than $77,000 in prizes. The eight dance categories ranged from "Jingle Dress"—female dancers wearing costumes festooned with delicate, cone-shaped metal "jingles" that tinkle in time to the drumbeat—to Yazzie's forte, "Men's Fancy Dance." This wickedly fast, free-form event is said to have its roots in Buffalo Bill-type Wild West shows.

Eight years ago, NMAI curator George Horse Capture came up with the idea of holding a powwow on the Mall. The venue, at the foot of the Capitol, was chosen for what Horse Capture calls its "symbolic significance": a great many laws that oppressed the Indian community, he says, were enacted within that building. The competition also takes place across the street from the construction site of the new National Museum of the American Indian, scheduled for completion in the fall of 2004.

Across the nation, Horse Capture notes,

**Larry Yazzie's head-turning costume is a work of wearable art.**

JOHNSON SPACE CENTER, NASA; BRAD EDWARDS MARKEL

*What to look for in a photo printer.*

# No borders.

Want the freedom to print beautiful, borderless photos without going to a photo lab?* Take a look at the all-new line of Canon printers. You can take digital images and print out 4″ x 6″ borderless photos in about 47 seconds.** You can also print stunning 8 1/2″ x 11″ edge-to-edge, borderless photos.† And with the Canon Easy-PhotoPrint software that comes with all our printers, it's never been easier to crop, rotate, resize and print your photos.†† So go ahead and start printing. There are no borders anymore. It's technology that makes sense. For details, visit www.usa.canon.com/consumer or call 1-800-OK-CANON.

Canon KNOW HOW™

Specifications subject to change without notice. *Borderless printing not available with Mac OS X v. 10.0 and v. 10.1.**4" x 6" photo print speed is based on default mode using Canon Photo Paper Pro For Borderless Printing. Print speed will vary depending on system configuration, software, document complexity, print mode and page coverage. †Borderless 8 1/2" x 11" printing not available on the i320 printer. ††Easy-PhotoPrint is for Windows operating systems only.

©2002 Canon U.S.A., Inc. Canon is a trademark of Canon Inc. Canon Know How is a trademark of Canon U.S.A., Inc.

## Divinities

Sixty sculptures of Hindu gods and goddesses, from the Chola dynasty (9th to 13th centuries) are unveiled November 5 in "The Sensuous and the Sacred: Chola Bronzes from South India," at the Sackler Gallery through March 9, 2003.

## Visit the Smithsonian

For a free Associates' planning packet, call Smithsonian Information, 202-357-2700 or 202-357-1729 (TTY), 9 A.M.-5 P.M., Monday through Saturday, or send an e-mail to info@si.edu.

**INFORMATION CENTER**

Upon arrival, stop at the Smithsonian Information Center in the Castle (9 A.M.-5:30 P.M.). Most museums are open daily, 10 A.M.-5:30 P.M., except December 25. Members are invited to drop by the reception desk (9 A.M.-4 P.M.) to register for a behind-the-scenes tour and to hear about membership benefits.

hundreds of powwows take place each year. The events, he says, "are becoming increasingly important in the American Indian culture."

Yazzie attended his first powwow at the age of 4 in Tama, his home village in Iowa. "It caught my spirit," he says. His grandfather, great-uncle and father were all dancers. His father, Jessup Lasley, acted as Yazzie's coach, introducing him to a conditioning regimen of jumping rope and running. Yazzie, who won the World Championship in 1995 in Ledyard, Connecticut, is one of about 500 "circuit dancers" who travel from powwow to powwow, much as cowboys follow rodeos. A top dancer may earn as much as $50,000 a year.

It was Michael Jordan's fancy footwork on the basketball court that inspired Yazzie to approach dancing as a sport. He guzzles Gatorade and loads up on pasta before competitions, studies videotape of his own performances and picks up new steps watching MTV. Alas, he had to settle for the $1,000 second-place prize (first prize was $1,200) at the 2002 Powwow on the National Mall, edged out by arch rival Jerry Cleveland, Jr., a Ho-Chunk from Wisconsin. But the loss fired his determination—of a sort.

"One of my goals is to get sponsored by Nike or Reebok," he says. "Those companies sponsor athletes. So why not Native American dancers?"

*—Tom Dunkel*

## Techno-wizards at Play

It all began with Legos, says computer scientist James McLurkin, who specialized in large-scale constructions of the daunting kind. By the age of 8, he had already built a motorized Lego monorail that traveled from the kitchen, down the hallway and into his bedroom.

"I was always getting into things," he recalls. "I hoarded broken bits, made messes, built things and burned up bathrooms."

The 30-year-old researcher is one of several techno-wizards featured in "Invention at Play," an exhibition that runs through December 29 at the National Museum of American History's Lemelson Center before traveling to 18 cities. The show explores the parallels between child's play and the creative process. "Play," he insists, "is and always has been critically important to what I do."

McLurkin's mother, Sandra Lawson, confirms this claim, recalling the astounding assemblages he produced from scavenged castoffs—a grand piano, a functional subcompact car, and mechanized tanks.

As an undergraduate at MIT, where he's now working on his doctorate in computer science, McLurkin made a name for himself by developing a series of cubic-inch microrobotic ants that mimic the behavior of the real thing.

McLurkin toys with his minirobots.

McLurkin brought along some of his latest toys—two small robots, representing the more than 120 apian-inspired creatures he is working on—to the opening of "Invention at Play." He envisions thousands, perhaps tens of thousands, of microrobots functioning in an intelligent, communal way, much like a swarm of bees. Ideally, such a robotic corps—able to divvy up tasks, allocate resources, share information and so on—could clear a minefield, explore a planet, remove toxic chemicals, investigate a bunker.

Says McLurkin: "All those large words—robotics, artificial intelligence, distributed algorithms—are actually about building really cool toys."

*—Victoria Dawson*

DALLAS MUSEUM OF ART; DONNA COVENEY/MIT NEWS OFFICE

LANDS' END

DIRECTIONS

©2002 Lands' End, Inc.

# THE PICTURE-PERFECT FAMILY GIFT.

SNOWFLAKE SWEATER 145

Our new Snowflake Sweater is tailor made for holiday family portraits and get-togethers. Jacquard knit with a cheery winter pattern. Available in sizes for the whole family – including a doggie version. Pure soft cotton, so the kids won't fidget. Call or click for a look at all the great gifts of Lands' End.®

1-800-960-9421 HOLIDAY MORNING MAGIC landsend.com

# You Could Win an Ultra Weekend in Washington, D.C.

## Luxury. Innovation.

### Sometimes it all just comes together.

To enter, go to www.parkavenue.com

BUICK®
PARK AVENUE®

**Buick Park Avenue Ultra's Smithsonian Magazine Sweepstakes Official Rules**

NO PURCHASE OR ONLINE ENTRY NECESSARY. MUST BE A CURRENT LEGAL U.S. RESIDENT, AND 18 YEARS OF AGE OR OLDER. A PURCHASE WILL NOT INCREASE CHANCE OF WINNING. Sweepstakes starts 3:00:01 a.m. EST 10/21/02 and ends 11:59:59 p.m. EST 11/22/02. Two ways to enter: 1) Mail a 3" x 5" card with your name, street address (no P.O. Boxes), city, state, Zip code, daytime telephone number and e-mail address (e-mail is optional) in an envelope to: Buick Park Avenue Ultra's Smithsonian Magazine Sweepstakes, PO Box 8700, Westport, CT, 06888. Limit one mail-in entry per day, per person per household address. Each mail-in entry must be individually hand-printed, [Rules continued on page 139.]

Find out more at buick.com.

©2002 GM Corp. All rights reserved.

ADVERTISEMENT

# THE SPIRIT OF AMERICAN STYLE

Introducing Harley Earl, America's greatest car designer, and how his bold design philosophy influenced the restyled 2003 Buick Park Avenue Ultra.

During the '30s and '40s, as General Motors' first styling chief, Harley Earl redefined the American car. He created cars with dramatic curves and swooping rooflines – styling cues never before seen on automobiles. He blended chrome with couture, power with fashion, to produce cars for Buick that would set the standard for automobile design. By the early 1950s, Harley Earl's Buicks were rolling icons of American grace and power.

**Today, the new 2003 Park Avenue Ultra is a living legacy of the glamour and stylish elegance introduced by Harley Earl.** With its aggressive stance, an abundance of chrome and leather appointments, and a classic Harley Earl signature – chrome plated portholes – the Park Avenue Ultra is a unique blend of tradition and style. Combine Park Avenue Ultra's quality craftsmanship with intelligent design and refined power, and it represents the rich heritage and modern luxury that could only be a Buick.

To learn about the 2003 Buick Park Avenue Ultra and the Harley Earl story, visit www.buick.com.

Expressive styling is just one of the many legacies of America's greatest car designer.

All of which live on today at the car company where he hung his hat.

**The new 2003 Park Avenue[3] Ultra.**

BUICK®

THE SPIRIT OF AMERICAN STYLE™

Find out more at buick.com. ©2002 GM Corp. All rights reserved.

THE MEXICAN ARTIST'S MYRIAD FACES, STRANGER-THAN-FICTION BIOGRAPHY AND POWERFUL PAINTINGS COME TO VIVID LIFE IN A NEW FILM

BY PHYLLIS TUCHMAN

# Frida Kahlo

The artist, c. 1930, by Paul Juley

FRIDA KAHLO, WHO PAINTED MOSTLY SMALL, INTENSELY PERSONAL WORKS FOR HERSELF, FAMILY and friends, would likely have been amazed and amused to see what a vast audience her paintings now reach. Today, nearly 50 years after her death, the Mexican artist's iconic images adorn calendars, greeting cards, posters, pins, even paper dolls. Several years ago the French couturier Jean Paul Gaultier created a collection inspired by Kahlo, and last year a self-portrait she painted in 1933 appeared on a 34-cent U.S. postage stamp. This month, the movie *Frida*, starring Salma Hayek as the artist and Alfred Molina as her husband, renowned muralist Diego Rivera, opens nationwide. Directed by Julie Taymor, the creative wizard behind Broadway's long-running hit *The Lion King*, the

film is based on Hayden Herrera's 1983 biography, *Frida*. Artfully composed, Taymor's graphic portrayal remains, for the most part, faithful to the facts of the painter's life. Although some changes were made because of budget constraints, the movie "is true in spirit," says Herrera, who was first drawn to Kahlo because of "that thing in her work that commands you—that urgency, that need to communicate."

Focusing on Kahlo's creativity and tumultuous love affair with Rivera, the film looks beyond the icon to the human being. "I was completely compelled by her story," says Taymor. "I knew it superficially; and I admired her paintings but didn't know them well. When she painted, it was for herself. She transcended her pain. Her paintings are her diary. When you're doing a movie, you want a story like that." In the film, the Mexican born and raised Hayek, 36, who was one of the film's producers, strikes poses from the paintings, which then metamorphose into action-filled scenes. "Once I had the concept of having the paintings come alive," says Taymor, "I wanted to do it."

In a 1928 photograph (top) taken by her father, Kahlo stands (rear center) behind her mother; her sister Cristina sits at bottom left. In her naively charming *My Grandparents, My Parents, and I* (1936), Kahlo appears both as a 2-year-old (in family patio) and in utero.

Kahlo, who died July 13, 1954, at the age of 47, reportedly of a pulmonary embolism (though some suspected suicide), has long been recognized as an important artist. In 2001-2002, a major traveling exhibition showcased her work alongside that of Georgia O'Keeffe and Canada's Emily Carr. Earlier this year several of her paintings were included in a landmark Surrealism show in London and New York. Currently, works by both Kahlo and Rivera are on view through January 5, 2003, at the Seattle Art Museum. As Janet Landay, curator of exhibitions at the Museum of Fine Arts, Houston and one of the organizers of a 1993 exhibition of Kahlo's work, points out, "Kahlo made personal women's experiences serious subjects for art, but because of their intense emotional content, her paintings transcend gender boundaries. Intimate and powerful, they demand that viewers—men and women—be moved by them."

Kahlo produced only about 200 paintings—primarily still lifes and portraits of herself, family and friends. She also kept an illustrated journal and did dozens of drawings. With techniques learned from both her husband and her father, a professional architectural photographer, she created haunting, sensual and stunningly original paintings that fused elements of surrealism, fantasy and folklore into powerful narratives. In contrast to the 20th-century trend toward abstract art, her work was uncompromisingly figurative. Although she received occasional commissions for portraits, she sold relatively few paintings during her lifetime. Today her works fetch astronomical prices at auction. In 2000, a 1929 self-portrait sold for more than $5 million.

Biographies of the artist, which have been translated into many languages, read like the fantastical novels of Gabriel García Márquez as they

SEE P. 139 FOR PICTURE CREDITS

trace the story of two painters who could not live with or without each other. (Taymor says she views her film version of Kahlo's life as a "great, great love story.") Married twice, divorced once and separated countless times, Kahlo and Rivera had numerous affairs, hobnobbed with Communists, capitalists and literati and managed to create some of the most compelling visual images of the 20th century. Filled with such luminaries as writer André Breton, sculptor Isamu Noguchi, playwright Clare Boothe Luce and exiled Russian revolutionary Leon Trotsky, Kahlo's life played out on a phantasmagorical canvas.

She was born Magdalena Carmen Frida Kahlo y Calderón July 6, 1907, and lived in a house (the Casa Azul, or Blue House, now the Museo Frida Kahlo) built by her father in Coyoacán, then a quiet suburb of Mexico City. The third of her parents' four daughters, Frida was her father's favorite—the most intelligent, he thought, and the most like himself. She was a dutiful child but had a fiery temperament. (Shortly before Kahlo and Rivera were wed in 1929, Kahlo's father warned his future son-in-law, who at age 42 had already had two wives and many mistresses, that Frida, then 21, was "a devil." Rivera replied: "I know it.")

A German Jew with deep-set eyes and a bushy mustache, Guillermo Kahlo had immigrated to Mexico in 1891 at the age of 19. After his first wife died in childbirth, he married Matilde Calderón, a Catholic whose ancestry included Indians as well as a Spanish general. Frida portrayed her hybrid ethnicity in a 1936 painting, *My Grandparents, My Parents, and I* (opposite).

Kahlo adored her father. On a portrait she painted of him in 1951, she inscribed the words, "character generous, intelligent and fine." Her feelings about her mother were more conflicted. On the one hand, the artist considered her "very nice, active, intelligent." But she also saw her as fanatically religious, calculating and sometimes even cruel. "She did not know how to read or write," recalled the artist. "She only knew how to count money."

A chubby child with a winning smile and sparkling eyes, Kahlo was stricken with polio at the age of 6. After her recovery, her right leg remained thinner than her left and her right foot was stunted. Despite her disabilities or, perhaps, to compensate for them, Kahlo became a tomboy. She played soccer, boxed, wrestled and swam competitively. "My toys were those of a boy: skates, bicycles," the artist later recalled. (As an adult, she collected dolls.)

Her father taught her photography, including how to retouch and color prints, and one of his friends gave her drawing lessons. In 1922, the 15-year-old Kahlo entered the elite, predominantly male National Preparatory School, which was located near the Cathedral in the heart of Mexico City.

As it happened, Rivera was working in the school's auditorium on his first mural. In his autobiography—*My Art, My Life*—the artist recalled that he was painting one night high on a scaffold when "all of a sudden the door flew open, and a girl who seemed to be no more than ten or twelve was propelled inside. . . . She had," he continued, "unusual dignity and self-assurance, and there was a strange fire in her eyes." Kahlo, who was actually 16, apparently played pranks on the artist. She stole his lunch and soaped the steps by the stage where he was working.

**Rivera and Kahlo (left, c. 1930) shared a tempestuous 26-year relationship. Husband, lover and mentor, he was also her "baby." "At every moment he is my child," she wrote in her diary, and so pictured him in her 1949 *The Love Embrace of the Universe* (detail, right).**

Kahlo planned to become a doctor and took courses in biology, zoology and anatomy. Her knowledge of these disciplines would later add realistic touches to her portraits. She also had a passion for philosophy, which she liked to flaunt. According to biographer Herrera, she would cry out to her boyfriend, Alejandro Gómez Arias, "lend me your Spengler. I don't have anything to read on the bus." Her bawdy sense of humor and passion for fun were well known among her circle of friends, many of whom would become leaders of the Mexican left.

Then, on September 17, 1925, the bus on which she and her boyfriend were riding home from school was rammed by a trolley car. A metal handrail broke off and pierced her pelvis. Several people died at the site, and doctors at the hospital where the 18-year-old Kahlo was taken did not think she would survive. Her spine was fractured in three places, her pelvis was crushed and her right leg and foot were severely broken. The first of many operations she would endure over the years brought only temporary relief from pain. "In this hospital," Kahlo told Gómez Arias, "death dances around my bed at night." She spent a month in the hospital and was later fitted with a plaster corset, variations of which she would be com-

*Self-Portrait on the Borderline between Mexico and the United States* (1932) was done in Detroit.

pelled to wear throughout her life.

Confined to bed for three months, she was unable to return to school. "Without giving it any particular thought," she recalled, "I started painting." Kahlo's mother ordered a portable easel and attached a mirror to the underside of her bed's canopy so that the nascent artist could be her own model.

Though she knew the works of the old masters only from reproductions, Kahlo had an uncanny ability to incorporate elements of their styles in her work. In a painting she gave to Gómez Arias, for instance, she portrayed herself with a swan neck and tapered fingers, referring to it as "Your Botticeli."

During her months in bed, she pondered her changed circumstances. To Gómez Arias, she wrote, "Life will reveal [its secrets] to you soon. I already know it all. . . . I was a child who went about in a world of colors. . . . My friends, my companions became women slowly, I became old in instants."

As she grew stronger, Kahlo began to participate in the politics of the day, which focused on achieving autonomy for the government-run university and a more democratic national government. She joined the Communist party in part because of her friendship with the young Italian photographer Tina Modotti, who had come to Mexico in 1923 with her then companion, photographer Edward Weston. It was most likely at a soiree given by Modotti in late 1928 that Kahlo re-met Rivera.

They were an unlikely pair. The most celebrated artist in Mexico and a dedicated Communist, the charismatic Rivera was more than six feet tall and tipped the scales at 300 pounds. Kahlo, 21 years his junior, weighed 98 pounds and was 5 feet 3 inches tall. He was ungainly and a bit misshapen; she was heart-stoppingly alluring. According to Herrera, Kahlo "started with dramatic material: nearly beautiful, she had slight flaws that increased her magnetism." Rivera described her "fine nervous body, topped by a delicate face," and compared her thick eyebrows, which met above her nose, to "the wings of a blackbird, their black arches framing two extraordinary brown eyes."

Rivera courted Kahlo under the watchful eyes of her parents. Sundays he visited the Casa Azul, ostensibly to critique her paintings. "It was obvious to me," he later wrote, "that this girl was an authentic artist." Their friends had reservations about the relationship. One Kahlo pal called Rivera "a pot-bellied, filthy old man." But Lupe Marín, Rivera's second wife, marveled at how Kahlo, "this so-called youngster," drank tequila "like a real mariachi."

The couple married on August 21, 1929. Kahlo later said her parents described the union as a "marriage between an elephant and a dove." Kahlo's 1931 Colonial-style portrait, based on a wedding photograph, captures the contrast. The newlyweds spent almost a year in Cuernavaca while Rivera executed murals commissioned by the American ambassador to Mexico, Dwight Morrow. Kahlo was a devoted wife, bringing Rivera lunch every day, bathing him, cooking for him. Years later Kahlo would paint a naked Rivera resting on her lap as if he were a baby.

With the help of Albert Bender, an American art collector, Rivera obtained a visa to the United States, which previously had been denied him. Since Kahlo had resigned from the Communist party when Rivera, under siege from the Stalinists, was expelled, she was able to accompany him. Like other left-wing Mexican intellectuals, she was now dressing in flamboyant native Mexican costume—embroidered tops and colorful, floor-length skirts, a style associated with the matriarchal society of the region of Tehuantepec. Rivera's new wife was "a little doll alongside Diego," Edward Weston wrote in his journal in 1930. "People stop in their tracks to look in wonder."

The Riveras arrived in the United States in November 1930, settling in San Francisco while Rivera worked on murals for the San Francisco Stock Exchange and the California School of Fine Arts, and Kahlo painted portraits of friends. After a brief stay in New York City for a show of Rivera's work at the Museum of Modern Art, the couple moved on to Detroit, where Rivera filled the Institute of Arts' garden court with compelling industrial scenes, and then back to New York City, where he worked on a mural for Rockefeller

Center. They stayed in the United States for three years. Diego felt he was living in the future; Frida grew homesick. "I find that Americans completely lack sensibility and good taste," she observed. "They are boring and they all have faces like unbaked rolls."

In Manhattan, however, Kahlo was exhilarated by the opportunity to see the works of the old masters firsthand. She also enjoyed going to the movies, especially those starring the Marx Brothers or Laurel and Hardy. And at openings and dinners, she and Rivera met the rich and the renowned.

But for Kahlo, despair and pain were never far away. Before leaving Mexico, she had suffered the first in a series of miscarriages and therapeutic abortions. Due to her trolley-car injuries, she seemed unable to bring a child to term, and every time she lost a baby, she was thrown into a deep depression. Moreover, her polio-afflicted and badly injured right leg and foot often troubled her. While in Michigan, a miscarriage cut another pregnancy short. Then her mother died. Up to that time she had persevered. "I am more or less happy," she had written to her doctor, "because I have Diego and my mother and my father whom I love so much. I think that is enough. . . . " Now her world was starting to fall apart.

Kahlo had arrived in America an amateur artist. She had never attended art school, had no studio and had not yet focused on any particular subject matter. "I paint self-portraits because I am so often alone, because I am the person I know best," she would say years later. Her biographers report that despite her injuries she regularly visited the scaffolding on which Rivera worked in order to bring him lunch and, they speculate, to ward off alluring models. As she watched him paint, she learned the fundamentals of her craft. His imagery recurs in her pictures along with his palette—the sunbaked colors of pre-Columbian art. And from him—though his large-scale wall murals depict historical themes, and her small-scale works relate her autobiography—she learned how to tell a story in paint.

Works from her American period reveal her growing narrative skill. In *Self-Portrait on the Borderline between Mexico and the United States*, Kahlo's homesickness finds expression in an image of herself standing between a pre-Columbian ruin and native flowers on one side and Ford Motor Company smokestacks and looming skyscrapers on the other. In *Henry Ford Hospital*, done soon after her miscarriage in Detroit, Kahlo's signature style starts to emerge. Her desolation and pain are graphically conveyed in this powerful depiction of herself, nude and weeping, on a blood-stained bed. As she would do time and again, she exorcises a devastating experience through the act of painting.

When they returned to Mexico toward the end of 1933, both Kahlo and Rivera were depressed. His Rockefeller Center mural had created a controversy when the owners of the project objected to the heroic portrait of Lenin he had included in it. When Rivera refused to paint out the portrait, the owners had the mural destroyed. (Rivera later re-created a copy for the Palace of Fine Arts in Mexico City.) To a friend Kahlo wrote, Diego "thinks that everything that is happening to him is my fault, because I made him come [back] to Mexico. . . . " Kahlo herself became physically ill, as she was prone to do in times of stress. Whenever Rivera, a notorious philanderer, became involved with other women, Kahlo succumbed to chronic pain, illness or depression. When he returned home from his wanderings, she would usually recover.

Seeking a fresh start, the Riveras moved into a new home in the upscale San Angel district of Mexico City. The house, now the Diego Rivera Studio museum, featured his-and-her, brightly colored (his was pink, hers, blue) Le Corbusier-like buildings connected by a narrow bridge. Though the plans included a studio for Kahlo, she did little painting, as she was hospitalized three times in 1934. When Rivera began an affair with her younger sister, Cristina, Kahlo moved into an apartment. A few months later, however, after a brief dalliance with the sculptor Isamu Noguchi, Kahlo reconciled with Rivera and returned to San Angel.

In late 1936, Rivera, whose leftist sym-

*The Two Fridas* (1939)—European and Mexican—reflects Kahlo's despair over her divorce.

pathies were more pronounced than ever, interceded with Mexican President Lázaro Cárdenas to have the exiled Leon Trotsky admitted to Mexico. In January 1937, the Russian revolutionary took up a two-year residency with his wife and bodyguards at the Casa Azul, Kahlo's childhood home, available because Kahlo's father had moved in with one of her sisters. In a matter of months, Trotsky and Kahlo became lovers. "El viejo" ("the old man"), as she called him, would slip her notes in books. She painted a mesmerizing full-length portrait of herself (far right), in bourgeois finery, as a gift for the Russian exile. But this liaison, like most of her others, was short lived.

Kahlo had a brief affair with Leon Trotsky (left, in 1937) while he and his wife lived at the Casa Azul. When it ended, Kahlo sent him a self-portrait (right) inscribed "with all love."

The French Surrealist André Breton and his wife, Jacqueline Lamba, also spent time with the Riveras in San Angel. (Breton would later offer to hold an exhibition of Kahlo's work in Paris.) Arriving in Mexico in the spring of 1938, they stayed for several months and joined the Riveras and the Trotskys on sight-seeing jaunts. The three couples even considered publishing a book of their conversations. This time, it was Frida and Jacqueline who bonded.

Although Kahlo would claim her art expressed her solitude, she was unusually productive during the time spent with the Trotskys and the Bretons. Her imagery became more varied and her technical skills improved. In the summer of 1938, the actor and art collector Edward G. Robinson visited the Riveras in San Angel and paid $200 each for four of Kahlo's pictures, among the first she sold. Of Robinson's purchase she later wrote, "For me it was such a surprise that I marveled and said: 'This way I am going to be able to be free, I'll be able to travel and do what I want without asking Diego for money.'"

Both Rivera and Kahlo (at a 1936 antifascist demonstration) were lifelong leftists.

Shortly after, Kahlo went to New York City for her first one-person show, held at the Julien Levy Gallery, one of the first venues in America to promote Surrealist art. In a brochure for the exhibition, Breton praised Kahlo's "mixture of candour and insolence." On the guest list for the opening were artist Georgia O'Keeffe, to whom Kahlo later wrote a fan letter, art historian Meyer Schapiro and *Vanity Fair* editor Clare Boothe Luce, who commissioned Kahlo to paint a portrait of a friend who had committed suicide. Upset by the graphic nature of Kahlo's completed painting, however, Luce wanted to destroy it but in the end was persuaded not to. The show was a critical success. *Time* magazine noted that "the flutter of the week in Manhattan was caused by the first exhibition of paintings by famed muralist Diego Rivera's . . . wife, Frida Kahlo. . . . Frida's pictures, mostly painted in oil on copper, had the daintiness of miniatures, the vivid reds and yellows of Mexican tradition, the playfully bloody fancy of an unsentimental child." A little later, Kahlo's hand, bedecked with rings, appeared on the cover of *Vogue*.

Heady with success, Kahlo sailed to France, only to discover that Breton had done nothing about the promised show. A disappointed Kahlo wrote to her latest lover, portrait photographer Nickolas Muray: "It was worthwhile to come here only to see why Europe is rottening, why all this people—good for nothing—are the cause of all the Hitlers and Mussolinis." Marcel Duchamp—"The only one," as Kahlo put it, "who has his feet on the earth, among all this bunch of coocoo lunatic sons of bitches of the Surrealists"—saved the day. He got Kahlo her show. The Louvre purchased a self-portrait, its first work by a 20th-century Mexican artist. At the exhibition, according to Rivera, artist Wassily Kandinsky kissed Kahlo's cheeks "while tears of sheer emotion ran down his face." Also an admirer, Pablo Picasso gave Kahlo a pair of earrings shaped like hands, which she donned for a later self-portrait. "Neither Derain, nor I, nor you," Picasso wrote to Rivera, "are capable of painting a head like those of Frida Kahlo."

Returning to Mexico after six months

**Even for Drs. Schwartz and Kalet,** two people familiar with the fragile biology of humans, the inevitable can be an unpleasant subject. Nevertheless, they know **the life cycle can be hard to predict** and the unthinkable is always a possibility. And they wanted to make sure the ones closest to them would be provided for.

That's why they added life insurance from TIAA (part of the TIAA-CREF group) to their portfolio.

Then they got back to thinking about the *life* part instead of the *insurance* part.

Log on for ideas, advice, and results. TIAA-CREF.org or call 800.842.1924

TIAA CREF

*Managing money for people with other things to think about.*℠

RETIREMENT | INSURANCE | MUTUAL FUNDS | COLLEGE SAVINGS | TRUSTS | INVESTMENT MANAGEMENT

Drs. Schwartz and Kalet were issued life insurance from Teachers Insurance and Annuity Association (TIAA) in 1990. TIAA-CREF Life Insurance Company, New York, NY, and TIAA issue life insurance policies. TIAA-CREF Individual and Institutional Services, Inc., and Teachers Personal Investors Services, Inc., distribute securities products. This is a paid endorsement. ©2002 Teachers Insurance and Annuity Association–College Retirement Equities Fund (TIAA-CREF), New York, NY

0281L.XAD

Kahlo (in *Self-Portrait with Cropped Hair*, 1940, left) cut her long locks, which Rivera loved, after one of their breakups. Her *Self-Portrait with Monkeys* (top), 1943, is one of many painted with the spider monkeys she kept as pets. In her depiction of herself in a journal entry with the inscription "broken wings" (above), Kahlo suggests a vulnerability that was never far from the surface.

abroad, Kahlo found Rivera entangled with yet another woman and moved out of their San Angel house and into the Casa Azul. By the end of 1939 the couple had agreed to divorce.

Intent on achieving financial independence, Kahlo painted more intensely than ever before. "To paint is the most terrific thing that there is, but to do it well is very difficult," she would tell the group of students—known as Los Fridos—to whom she gave instruction in the mid-1940s. "It is necessary . . . to learn the skill very well, to have very strict self-discipline and above all to have love, to feel a great love for painting." It was during this period that Kahlo created some of her most enduring and distinctive work. In self-portraits, she pictured herself in native Mexican dress with her hair atop her head in traditional braids. Surrounded by pet monkeys, cats and parrots amid exotic vegetation reminiscent of the paintings of Henri Rousseau, she often wore the large pre-Columbian necklaces given to her by Rivera.

In one of only two large canvases ever painted by Kahlo, *The Two Fridas*, a double self-portrait done at the time of her divorce, one Frida wears a European outfit torn open to reveal a "broken" heart; the other is clad in native Mexican costume. Set against a stormy sky, the "twin sisters," joined together by a single artery running from one heart to the other, hold hands. Kahlo later wrote that the painting was inspired by her memory of an imaginary childhood friend, but the fact that Rivera himself had been born a twin may also have been a factor in its composition. In another work from this period, *Self-Portrait with Cropped Hair* (1940), Kahlo, in a man's suit, holds a pair of scissors she has used to sever the locks that surround the chair on which she sits. More than once when she dis-

It was the first mass-produced vehicle in the world to combine an advanced gasoline engine with an electric motor that never needs to be plugged in. It achieves double the average mileage of conventional vehicles, with up to 90% fewer smog-forming emissions[2]. And since 1997, over 100,000 owners have been putting it through its paces, covering more than a billion miles[3]. The gas/electric Toyota Prius. One revolutionary vehicle that can really go the distance.

PRIUS | genius

Mexican-born actress Salma Hayek (as Kahlo) was impressed by the way the artist "bared her soul in such an honest way."

covered Rivera with other women, she had cut off the long hair that he adored.

Despite the divorce, Kahlo and Rivera remained connected. When Kahlo's health deteriorated, Rivera sought medical advice from a mutual friend, San Francisco doctor Leo Eloesser, who felt her problem was "a crisis of nerves." Eloesser suggested she resolve her relationship with Rivera. "Diego loves you very much," he wrote, "and you love him. It is also the case, and you know it better than I, that besides you, he has two great loves—1) Painting 2) Women in general. He has never been, nor ever will be, monogamous." Kahlo apparently recognized the truth of this observation and resigned herself to the situation. In December 1940, the couple remarried in San Francisco.

The reconciliation, however, saw no diminution in tumult. Kahlo continued to fight with her philandering husband and sought out affairs of her own with various men and women, including several of his lovers. Still, Kahlo never tired of setting a beautiful table, cooking elaborate meals (her stepdaughter Guadalupe Rivera filled a cookbook with Kahlo's recipes) and arranging flowers in her home from her beloved garden. And there were always festive occasions to celebrate. At these meals, recalled Guadalupe, "Frida's laughter was loud enough to rise above the din of yelling and revolutionary songs."

During the last decade of her life, Kahlo endured painful operations on her back, her foot and her leg. (In 1953, her right leg had to be amputated below the knee.) She drank heavily—sometimes downing two bottles of cognac a day—and she became addicted to painkillers. As drugs took control of her hands, the surface of her paintings became rough, her brushwork agitated.

In the spring of 1953, Kahlo finally had a one-person show in Mexico City. Her work had previously been seen there only in group shows. Organized by her friend, photographer Lola Alvarez Bravo, the exhibition was held at Alvarez Bravo's Gallery of Contemporary Art. Though still bedridden following the surgery on her leg, Kahlo did not want to miss the opening night. Arriving by ambulance, she was carried to a canopied bed, which had been transported from her home. The headboard was decorated with pictures of family and friends; papier-mâché skeletons hung from the canopy. Surrounded by admirers, the elaborately costumed Kahlo held court and joined in singing her favorite Mexican ballads.

Kahlo remained a dedicated leftist. Even as her strength ebbed, she painted portraits of Marx and of Stalin and attended demonstrations. Eight days before she died, Kahlo, in a wheelchair and accompanied by Rivera, joined a crowd of 10,000 in Mexico City protesting the overthrow, by the CIA, of the Guatemalan president.

Although much of Kahlo's life was dominated by her debilitated physical state and emotional turmoil, Taymor's film focuses on the artist's inventiveness, delight in beautiful things and playful but caustic sense of humor. Kahlo, too, preferred to emphasize her love of life and a good time. Just days before her death, she incorporated the words *Viva La Vida* (Long Live Life) into a still life of watermelons. Though some have wondered whether the artist may have intentionally taken her own life, others dismiss the notion. Certainly, she enjoyed life fully and passionately. "It is not worthwhile," she once said, "to leave this world without having had a little fun in life."

"I never painted dreams," said Kahlo (at Casa Azul, 1943). "I painted my own reality."

*New York-based art historian Phyllis Tuchman wrote on Alexander Calder in May 2001.*

*"Bon Voyage! Meet 3,000 of your new best friends. You'll have plenty of time to get to know them all since you'll be stuck on this ship 80% of your vacation!"*

## THERE'S A BETTER WAY TO SEE EUROPE℠

- Comfortable cruising on intimate 150-passenger ships, ***not*** huge ocean liners
- Scenic cruising through the heart of Europe, ***not*** 10 miles away from land
- Daily port visits to legendary cities and quaint villages, ***not*** continuous days at sea
- Cruise fares with included daily shore excursions ***from just*** **$899**

CALL YOUR TRAVEL AGENT OR 1-800-510-5461 FOR A FREE BROCHURE

VIKING
RIVER CRUISES
*Exploring Europe in Comfort℠*

*www.vikingrivercruises.com*

CST: #2052644-40

RAISED FROM THE DEEP, THE *MONITOR*'S TURRET REVEALS A BOUNTY OF NEW DETAILS ABOUT THE SHIP'S VIOLENT END

# Pieces of

# HISTORY

**BY WENDY MITMAN CLARKE**
**PHOTOGRAPHS BY LYNDA RICHARDSON**

Though only half the length of the *Virginia* (a.k.a. *Merrimack*) and with only one-fifth her firepower, the USS *Monitor* battled the Confederate ironclad (alone in an 1886 lithograph) to a draw in March 1862. This past August, marine archaeologists recovered the *Monitor*'s turret from the seafloor where the ship sank in a storm nine months after the battle.

SIXTEEN MILES OFF NORTH Carolina's Cape Hatteras and 240 feet beneath the surface of the Atlantic, the ocean bottom was as gray, pocked and silent as the moon. Harbor Branch Oceanographic Institution's Johnson-Sea-Link II submersible slowed, and pilot Don Liberatore turned on its sonar. A thick smudge of white light pulsed like a heartbeat on the readout, growing bigger by the second. "It's coming up right now," Liberatore said. He toggled a switch, light flooded the void, and the chiseled bow of the USS *Monitor*, the Civil War's most celebrated ship, appeared on the screen.

Paymaster William Keeler (with hand to ear) wrote to his wife of "a panorama of horror."

Liberatore steered the sub over the *Monitor*'s forward section, a wreckage of iron plates and frames that once composed the officers' and captain's quarters. Here, beneath a dim skylight 140 years ago, acting assistant paymaster William F. Keeler wrote to his wife, Anna, describing life aboard "our iron monster." Here, too, in the wardroom, commissioned officers shared meals, debated politics and discussed their innovative little ironclad's next assignment in a war that was tearing the young United States apart.

The sub moved slowly farther aft and hovered next to a 9-foot-tall, 22-and-a-half-foot-wide revolving turret, the first in naval history. Schools of small orange fish called red barbiers flitted about the iron cylinder. "I feel like I can reach out and touch it," said John Broadwater, his voice rasping in the sub's headphones. An underwater archaeologist and manager of the Monitor National Marine Sanctuary, Broadwater was among the first to explore the wreck after it was discovered by scientists aboard Duke University's vessel *Eastward*, in 1973, and has since championed the effort to recover parts of it. He has guided the five-year partnership between the National Oceanic and Atmospheric Administration, which oversees the sanctuary, and the U.S. Navy, whose divers have retrieved the ship's propeller, engine and hundreds of other artifacts. This past summer, the team went for the turret itself. In July, Navy divers discovered that the two 11-inch Dahlgren cannons had not dropped out of the turret, as some historians speculated, when the *Monitor* sank on December 31, 1862, landing upside down on the ocean floor. They also learned that at least two members of the crew who were lost on that "night of horrors," as Keeler put it, died in the turret itself, their last and only refuge from the storm-lashed sea.

THE UNION NAVY BROUGHT OUT THE *Monitor* on January 30, 1862, amid much skepticism. "We heard every kind of derisive epithet applied to our vessel—she was called a 'silly experiment,' an 'iron coffin for her crew' & and we were styled fool hardy for daring to make the trip in her, & this too by navy men," wrote Keeler. Designed by Swedish-American inventor John Ericsson, the *Monitor* was a hodgepodge of components never before joined: steam power, iron construction, a revolving turret. Resembling a 173-foot-long black lozenge, it looked more like a submarine than a surface warship. The flat deck cleared the water by only 14 inches when the ship was loaded. In the middle sat the gigantic and ungainly turret, shaped like a pillbox.

For centuries, the vagaries of wind and current had played a major role in all naval battles. Wooden sailing ships jockeyed with each other for hours or even days, trying to come up broadside so they could engage their guns with maximum effectiveness. The *Monitor* changed all that. With its iron construction designed to deflect enemy fire, and its 400-horsepower steam engine, the *Monitor* eliminated traditional ships' two major weaknesses: a vulnerability to cannon shot and restricted maneuverability. But the revolving turret was by far the *Monitor*'s most enduring innovation. Armed only with two 16,000-pound cannons, the turret was built of eight layers of inch-thick iron bolted together and seated in a brass ring. Two small auxiliary engines called donkey engines rotated the turret, enabling the *Monitor* to fire upon an enemy no matter where the ship was situated.

## "We heard every kind

THIS PAST SUMMER, BROADWATER AND a crew of U.S. Navy divers were camped out on the 300-foot derrick barge *Wotan*, anchored off the North Carolina coast. Working in teams around the clock, 7 days a week for 41 days, 162 divers had readied the *Monitor*'s turret for bringing it to the surface, cutting, hammering and dredging their way through tons of concreted coral, coal and sediment to clear the turret's interior. When the capsized *Monitor* sank to the seafloor, a coal scuttle landed on top of the turret, filling it with tons of coal the crew had bunkered just before leaving the Chesapeake. At this depth, the surface-supplied divers had at most 40 minutes before they had to begin the 70-minute climb to sea level, stopping at way points so that their bodies could slowly get rid of accumu-

MARINERS' MUSEUM, VIRGINIA; PP. 62,63 BRIDGEMAN ART LIBRARY; P. 63 STEVE EARLEY/THE VIRGINIA-PILOT

lated nitrogen that can cause the debilitating and sometimes fatal diving sickness known as the bends. Once they'd finished their last stop at 40 feet, they had only five minutes to swim to the surface, climb onto the barge's deck—where the team stripped off their 175 pounds of gear—and get into the onboard decompression chamber for up to two more hours.

All that's risky enough, but nearby were the cowboys who ride even wilder ponies—saturation divers, who don't return to sea level for up to ten days. In teams of two they worked on the wreck for 12 hours, then climbed into a diving bell pressurized at 230 feet. Winched back from the depths onto the barge, the bell was joined to a cluster of huge, white decompression chambers where the divers could safely eat, sleep and live for the duration of their ten-day shift. Life under pressure is uniquely dangerous, even for ordinary activities. A tiny air bubble in a cough drop can create a vacuum that will suck the lozenge against a diver's tongue or mouth with remarkable force, leaving a painful ulcer. And returning to sea level was a 66-hour trip through another chamber.

Which is why they love it, of course. "Out of the Blue, Into the Black," read one diver's T-shirt, quoting Neil Young, who probably never considered his lyric quite so literally. Pound for pound, there was enough testosterone on the *Wotan* this summer to supply Viagra Nation. These divers are the front line for maritime disasters of all stripes, from the crash of TWA Flight 800 to the terrorist attack on the USS *Cole*. They dive on wrecks where they can barely see and the bodies still have faces.

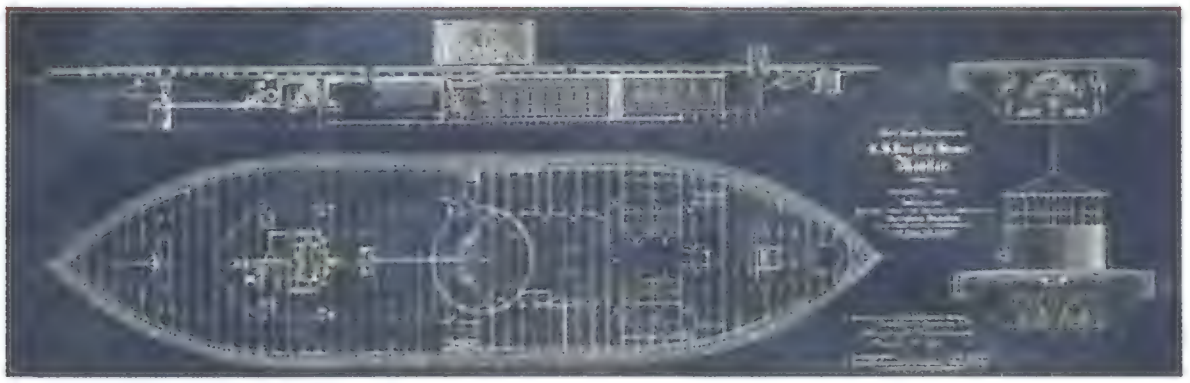
All that hard work paid off. They recovered the glass hydrometers that 25-year-old, first-class fireman George Geer would have used to measure the salinity of seawater intended to fill the ship's boilers, and mustard and pepper bottles used to spice up the bland Navy food. They found bones. The coal and sediment had preserved them remarkably well. "We found fully articulated skeletal remains," says Wayne Lusardi, museum conservator at the Mariners' Museum in Newport News, Virginia. "Buttons were found at the wrists, down the thoracic cavity, near the waist." The dead sailor had carried a knife in his right front pocket; it was found resting on his right femur, enclosed within some wool fabric. Archaeologists believe the knife may yield some clues to the sailor's identity. Later, they found a second skeleton. These remains are being treated as MIAs, and they have been sent to the Army's Central Identification Laboratory in Hawaii, where forensic anthropologists are working to identify them.

Says Cmdr. Bobbie Scholley, commanding officer of the Navy's Mobile Diving and Salvage Unit Two and head of this expedition's dive operations, "We feel connected to the sailors, because we're bringing them home."

AFTER SEEING HIS IRON HOME FOR THE first time, Keeler wrote to Anna that "your better half will be in no more danger from rebel compliments than if he was seated with you at home." It was kind reassurance for a lonely wife. But the Union Navy was in a terrible hurry, for the Confederates had just unveiled a secret weapon, and haste would almost undermine the *Monitor*. In April 1861, the Confederates occupied the Navy Yard at Hampton Roads in Virginia and salvaged the Union warship *Merrimack*, which had been scuttled nearby. They refitted her with steam engines, sheathed her topsides in iron and armed her with ten guns, renaming her the CSS *Virginia*. (Union sailors refused to call the ship by its Confederate name, and many historians perpetuated that insult well into the 20th century. To this day, most people still refer to her as the *Merrimack*.) The *Virginia* represented a serious threat to Union ships blockading the entrance to Hampton Roads, which ensured them access to northern supply routes in the Atlantic and in the Chesapeake Bay. The Union commanders feared that their blockading ships wouldn't stand a chance against the fortified *Virginia*. They needed backup in a hurry.

By September, Union officials had approved a design. It took only another four months to build the *Monitor*. With a complement of 11 officers and 48 men, the ship set out March 6, 1862, from the Brooklyn Navy Yard in New York, bound for the Chesapeake Bay and the *Virginia*. A day into the voyage, the seas rose and the wind started blowing furiously. The *Monitor* started leaking. Water poured down through the turret on top of George Geer, who was fighting a cold and had been trying to rest in his hammock on the berth deck. Paymaster Keeler looked up from his writing desk and saw waves washing over his small skylight. Water flooded the stubby blower pipes, soaking the belts that drove the ventilators. Toxic fumes from the coal-fired boilers felled men where they stood, and their mates carried fallen soldiers to the top of the turret for fresh air. Without suffi-

of derisive epithet applied to our vessel," wrote William Keeler.



**Keeler called the ship "our iron monster," but others referred to it as an "iron coffin."**

MARINERS' MUSEUM

# Excerpt from *The Atlantic Monthly*, July 1862 by Nathaniel Hawthorne

AT NO GREAT DISTANCE FROM THE Minnesota lay the strangest-looking craft I ever saw. It was a platform of iron, so nearly on a level with the water that the swash of the waves broke over it, under the impulse of a very moderate breeze; and on this platform was raised a circular structure, likewise of iron, and rather broad and capacious, but of no great height. It could not be called a vessel at all; it was a machine,—and I have seen one of somewhat similar appearance employed in cleaning out the docks; or, for lack of a better similitude, it looked like a gigantic rat-trap. It was ugly, questionable, suspicious, evidently mischievous,—nay, I will allow myself to call it devilish; for this was the new war-fiend, destined, along with others of the same breed, to annihilate whole navies and batter down old supremacies. The wooden walls of Old England cease to exist, and a whole history of naval renown reaches its period, now that the Monitor comes smoking into view; while the billows dash over what seems her deck, and storms bury even her turret in green water, as she burrows and snorts along, oftener under the surface than above. The singularity of the object has betrayed me into a more ambitious vein of description than I often indulge. . .

GOING ON BOARD, WE WERE SURPRISED at the extent and convenience of her interior accommodations. There is a spacious ward-room, nine or ten feet in height, besides a private cabin for the commander, and sleeping accommodations on an ample scale; the whole well lighted and ventilated, though beneath the surface of the water. Forward, or aft, (for it is impossible to tell stem from stern,) the crew are relatively quite as well provided for as the officers. It was like finding a palace, with all its conveniences, under the sea. The inaccessibility, the apparent impregnability, of this submerged iron fortress are most satisfactory; the officers and crew get down through a little hole in the deck, hermetically seal themselves, and go below; and until they see fit to reappear, there would seem to be no power given to man whereby they can be brought to light. A storm of cannon-shot damages them no more than a handful of dried peas. We saw the shot-marks made by the great artillery of the Merrimack on

Cooking on the deck, July 9, 1862

the outer casing of the iron tower; they were about the breadth and depth of shallow saucers, almost imperceptible dents, with no corresponding bulge on the interior surface. In fact, the thing looked altogether too safe; though it may not prove quite an agreeable predicament to be thus boxed up in impenetrable iron, with the possibility, one would imagine, of being sent to the bottom of the sea, and, even there, not drowned, but stifled. Nothing, however, can exceed the confidence of the officers in this new craft. It was pleasant to see their benign exultation in her powers of mischief, and the delight with which they exhibited the circumvolutory movement of the tower, the quick thrusting forth of the immense guns to deliver their ponderous missiles, and then the immediate recoil, and the security behind the closed port-holes. Yet even this will not long be the last and most terrible improvement in the science of war. Already we hear of vessels the armament of which is to act entirely beneath the surface of the water; so that, with no other external symptoms than a great bubbling and foaming, and gush of smoke, and belch of smothered thunder out of the yeasty waves, there shall be a deadly fight going on below,—and, by-and-by, a sucking whirlpool, as one of the ships goes down.

cient draft, the boilers began shutting down, leaving barely enough power to run the pumps.

It was an inauspicious—and nearly fatal—beginning for the Union Navy's experiment and a portent of the ship's fate. But when the storm blew itself out, the *Monitor* and her exhausted crew were still afloat. Within three days after leaving New York, they arrived in Hampton Roads in time to witness the *Virginia*'s horrifying handiwork that day: the 50-gun frigate *Congress* lay burning and would soon explode; the sloop *Cumberland* had been rammed and then sunk; the steam frigate *Minnesota* sat grounded and useless off Newport News.

The next morning, March 9, 1862, the *Monitor* steamed over to the Union vessel *Minnesota*, whose crew members were frantically throwing whatever they could get their hands on overboard in an attempt to lighten her and free her keel. The *Virginia* approached

## As the *Monitor*'s turret

the *Minnesota*, intent on finishing her off. At first, the Confederate sailors paid little attention to the *Monitor*, which was half the *Virginia*'s length and sat low in the water. But when the *Monitor*'s second cannon-shot solidly hit the *Virginia*, the battle of the ironclads was joined. Hurling shot, sometimes from a range of only 20 feet, the two ships pummeled each other for four hours.

But it soon became clear that the *Monitor*'s guns were not capable of delivering a deathblow to the *Virginia*. The guns' designer, Capt. John A. Dahlgren, had expressed some concerns about the integrity of the untested cannons, so Lt. John L. Worden, the *Monitor*'s captain, had ordered his gunners to load only one charge of gunpowder per firing. Later tests showed these cannons could have handled three charges, and historians have speculated that, had they done so, the *Monitor* would have severely damaged or even sunk the Confederate vessel. As it was, the cannon only cracked several iron plates. As for the *Monitor*'s vaunted turret, at first it wouldn't turn at all, be-

MARINERS' MUSEUM/CORBIS

separated, the three divers found themselves in a total blackout.

cause the drenching ride south had rusted the control wheel. Even when Chief Engineer Alban Stimers cleared the rust, he found the turret difficult to control or stop in time for an accurate shot.

Still the *Monitor* had made its point. The *Virginia*'s balls had pocked and dented the turret—one vicious hit knocked unconscious two men inside. But the *Monitor*'s eight inches of armor and ability to fire from any position had proved its tactical worth. Safe within the ship, none of the crew was seriously hurt; only Worden was badly injured when he peered from the pilothouse just as a shell exploded. "Our ship resisted everything they could fire at her as though they were spit balls," Geer wrote to his wife, Martha.

History would call the battle a stalemate, but by thwarting the *Virginia*'s efforts to sink the blockading fleet, the *Monitor* had preserved the Union's strategically important control of the Chesapeake Bay. From President Lincoln to ordinary citizens, no one could get enough of the little ship. Lincoln visited the vessel shortly after the battle

Archaeologist Broadwater (with beard), conservators Lusardi and Peterson (back row), and historian Johnston worked closely with elite Navy divers (above) on the recovery.

and on other occasions during the spring and summer. Even Nathaniel Hawthorne visited the ship (see sidebar, p. 66). "People seem to regard her as a sort of irresistable war monster & anyone arriving from her as something more than human," Keeler wrote. The men of the *Monitor* were heroes, bearers of their tormented nation's right stuff.

IT WAS AN EARLY MORNING IN AUGUST 2002, and the metal deck of the *Wotan* was beginning to bake. Inside the gray metal container that served as the Navy dive team's command center, Scholley, Chief Warrant Officer Rick Cavey and John Broadwater anxiously watched video monitors showing divers working 240 feet below. A cold front was coming from the northwest and a tropical depression spun to the south, either of which might suspend diving and put a disappointing end to the $14 million project after five long years of effort. In four days, funds would be exhausted.

The divers had already centered a 25-ton, eight-legged grappling claw called the Spider over the turret and lowered a platform next to it. With the turret safely embraced in the Spider's clutch, what remained was to attach eight shackles and lifting straps to the legs; raise the turret and place it on the platform; anchor the Spider to the platform with turnbuckles and more shackles; and then lift the whole thing.

That was the plan. But for the past three days rough water and strong bot-

Amid decayed wood fragments (above) and coal in the turret, conservators discovered the gold ring of a drowned crew member.

Condiment bottles

tom currents had made it impossible. By the next day, the approaching front would turn this unforgiving stretch of water into a maelstrom of 30-knot winds and six-foot seas. Broadwater and Scholley had been considering the possibility of coming home empty-handed. It was now or never.

About 7 A.M., divers headed down to the site and started attaching the 135-pound lifting shackles. Though the surface was calm, the bottom current remained "at the edge of the margins," said Cavey. One of Cavey's divers found that the only way to fight the current was to stab his knife into the seabed and pull himself along.

The sound of the ragged breathing of the divers filled the combox, a small speaker broadcasting the communication among the divers below the surface. When they talked, either to each other or to colleagues on the surface, they sounded like Donald Duck, due to the special mix of oxygen and helium they breathed.

Near the combox, a support team of 22 additional divers listened and waited. A fully suited diver sat heavily in a chair, ready to go below at a hint of trouble. Another, dressed only in running shorts, boots and tattoos, kept his eyes riveted on the panel that controlled the gas mix that the divers breathed. Several oversaw the umbilicals, a series of hoses that supplied the divers with air, communication and warm water, which was continuously pumped through their suits. Another diver kept time, checking a series of stopwatches slung around his chest like bandoliers.

On the sea bottom, saturation diver Chief Petty Officer Keith Nelson, along with two other divers, wrestled the last shackle into place. "That's it!" he said. Then Nelson helped the operator of the *Wotan*'s 500-ton crane gently pluck the dislodged turret from the sea bottom. As it began to separate, the three divers found themselves in a total blackout as sediment swirled around them. When the current finally swept the bottom clear, the crane slowly moved the Spider over the platform. Slight swells at the surface turned the 235-ton load into an underwater wrecking ball: slamming downward, it left four-inch indentations in the platform's three-eighths-inch-thick steel plate. Finally, the crew got the platform attached, and the lift began. When the *Monitor*'s turret broke the water's surface, starfish and coral fell off, and seawater sluiced out its gunports and over the clearly visible dents that the *Virginia*'s cannonballs had inflicted 140 years ago. Broadwater stood momentarily speechless before joining the rest of the barge in stentorian war whoops of victory.

TWO MONTHS AFTER THE BATTLE OF the ironclads, the Union took the port of Norfolk. The Confederates grounded the *Virginia*, set her on fire and let 18 tons of powder in her magazine make sure that not one rivet would go to the Union cause. Her nemesis gone, the *Monitor* sailed up the James River to

Conservator Jeanne Willoz-Egnor oversees some 600 items from the *Monitor*, including clothing (right, front) recovered from the turret.

spend a tedious, sweltering summer shadowing Union Gen. George McClellan's abortive peninsula campaign. "I have charge of the Thurmomitor," Geer wrote to Martha on June 13, "and found in my store room, which is farthest astern, it stood at 110; in the engine room 127; in the galley . . . 155; on the berth deck where we sleep 85."

For the sailors, poor ventilation ranked high on a long list of complaints. In October, the *Monitor* arrived in Washington, D.C. and underwent several weeks of refitting, but then she rushed to Hampton Roads again, this time to join two other monitor-class ironclads ordered to take Wilmington, North Carolina. On Monday, December 29, the *Monitor* left the Chesapeake under tow by the side-wheel steamer *Rhode Island*.

Thermometer

Tuesday morning a storm started brewing. By nightfall, the *Monitor* was taking the rough water head-on. "The heavy seas rolled over our bows dashing against the pilot house &, surging aft, would strike the solid turret with a force to make it tremble," Keeler wrote to Anna. The pounding soon took a toll and waves began sweeping the turret. Water—the *Monitor*'s most relentless enemy—started filling the ship. "I staid by the pump untill the water was up to my knees and the cylinders to the pump engines were under water and stoped," Geer wrote. "She was so full of water and roled and pitched so bad I was fearfull she would role under and forget to come up again." By the time he and the last dozen men got to the turret—the only way to reach the deck—the *Monitor* was sinking. They saw the *Rhode Island*'s boats coming to take them off.

Brass navigation lamp

"It was a scene well calculated to appall the boldest heart," Keeler wrote. "Mountains of water were rushing across our decks & foaming along our sides." As the men climbed down the turret and crawled toward the boats, the sea snatched at least two of them and swept them to their deaths. The rescue boats smashed against the ship's side, the wind howled and the men screamed into the roaring blackness. "The whole scene lit up by the ghastly glare of the blue lights burning on our consort, formed a panorama of horror which time can never efface from my memory," Keeler wrote. Geer jumped from the turret and made for a boat just as a wave swept the man next to him overboard. "As soon as the Wave had passed over . . . this time reached the Boat and was Saved, and I can tell you I would not like to try it over again." After shedding most of his clothes, Keeler tried to climb down the turret but found the ladder stacked with terrified sailors. He slid down a line hanging from one of the turret awning's stanchions, and a wave immediately

After 41 days of grueling, round-the-clock diving, Cmdr. Bobbie Scholley and her dive team celebrated the turret's recovery.

swept him across the deck, slamming him into a lifeline stanchion. "I grasped with all the energy of desperation," he wrote, and he pulled himself along the ship deck's lifelines until at last he reached a boat and was hauled aboard.

Atop the turret, a single lantern burned red. Just before 1 A.M., as the last boat left the *Rhode Island* to retrieve the remaining men, the light went out. The *Monitor*, along with 16 men, was gone.

INSIDE THE TURRET, THE ONLY SMELL IS OF the sea. Coral clings to the metal shell. The one-and-a-quarter-inch-thick bolts that hold the iron sheets together look like gigantic rusty polka dots. The dents made by the *Virginia*'s cannon are the diameter of a soccer ball. Wooden blocks with hanks of rope lying in their sheaves hang as if still waiting for a hand to turn them. Ramrods and other tools used by the gunners are scattered about. As soon as the turret was raised, archaeologists found the second skeleton. "They were lying very close together near one of the hatches in the turret's roof," says Broadwater. Preliminary excavation also found fragments of a wool overcoat, rubber buttons with "U.S. Navy" inscribed on them, a comb made of India rubber and, from one of the sailors' pockets, a silver serving spoon with an engraved design on it.

The turret arrived August 10 at the Mariners' Museum in Newport News, Virginia, where all of the artifacts recovered from the *Monitor* are undergoing conservation, and was immediately immersed in an 86,000-gallon conservation tank. Thermometers, bottles and lantern chimneys; gimballed lantern holders graced with ornate Victorian filigree; bilge pump parts and ladders; the 36-ton engine encrusted with marine life—all bathe in a variety of containers, from small tubs to construction-size Dumpsters, where a cocktail of chemicals slowly removes the corrosive salts that have permeated the metal parts.

It will take months for archaeologists to finish the excavation of the turret and discern its secrets. And it will be years—an estimated 12 to 15—before the metal of the turret will be stable enough to be removed from the conservation tank so it can be displayed for public viewing at the soon-to-be-built USS *Monitor* Center at the museum.

Meantime, Broadwater and his team will try to find a way to return to the ship. They want to stabilize what remains of the hull and perhaps explore some of its forward sections, where William Keeler wrote his long letters and the officers of the *Monitor* raised toasts to their doughty little ship. Now on the ocean floor, what's left of the *Monitor* rests quietly, perhaps with more stories yet to tell.

*Wendy Mitman Clarke's book,* Window on the Chesapeake, *is due out in 2003. Lynda Richardson photographed desert biologist Pinau Merlin in December 2001.*

Blue Line
to
commencement
to
corner office.

Getting to class is just one of the many reasons 14 million Americans ride public transportation every day. They also ride it to go shopping. Or to volunteer at a local community center. And when people have the freedom and opportunity to pursue their dreams, the whole community thrives. To find out more information about how public transportation benefits both individuals and communities, visit www.publictransportation.org.

PUBLIC TRANSPORTATION

*Wherever life takes you*

© 2002 Public Transportation Partnership for Tomorrow

## TODAY

Encourage our engineers
to push the boundaries

# TOMORROW

## Cars without limits

# TOYOTA

A surfboard you can ride on land.

A car driven by sound.

A vehicle powered by hamsters.

At Toyota, we value ideas no matter how silly they may seem. Like the inventions generated by our annual Idea Expo — a unique competition that encourages our employees to come up with serious technological innovations through the use of good old-fashioned fun.

For example, this year's winners ranged from a whimsical robotic Santa's sleigh to a wheelchair that can be driven virtually anywhere — even up and down stairs.

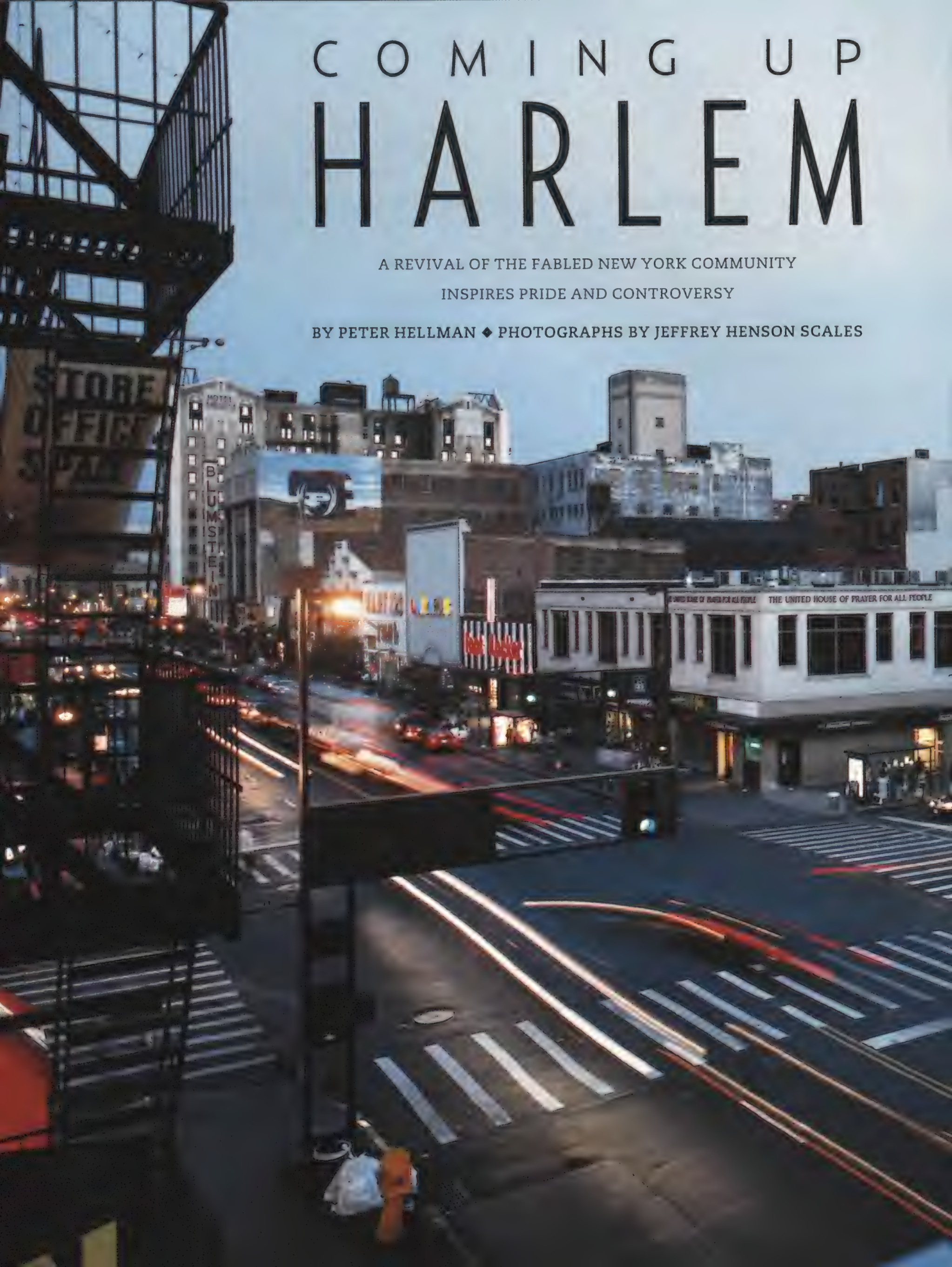
One day, advances made through our Idea Expo may be applied to Toyota's vehicles. So we'll keep encouraging our engineers to be a little bit out there. That way, the car as we know it may go a lot further.

www.toyota.com/tomorrow

# COMING UP HARLEM

## A REVIVAL OF THE FABLED NEW YORK COMMUNITY INSPIRES PRIDE AND CONTROVERSY

BY PETER HELLMAN ◆ PHOTOGRAPHS BY JEFFREY HENSON SCALES



"Why, it is just like the *Arabian Nights*," Duke Ellington once said of Harlem, now enjoying a long-awaited boom as marquee businesses open on the area's grand boulevard, 125th Street.

AT 6:30 ONE RECENT MORNING, PAULETTE GAY WAS ALREADY WORKING AT THE SCARF LADY, her four-year-old boutique on Lenox Avenue, a faded Harlem thoroughfare showing vivid signs of renewal. Because the sidewalk is normally deserted at that hour, Gay was surprised to see someone peering in the store window—a giant of a man with a shaved head and piercing eyes. He looked familiar. Gay stuck her head out the door and said, "Aren't you—?"

He was. Kareem Abdul-Jabbar, the basketball great, who was born in the neighborhood and had long been a celebrated resident of Los Angeles, was back in Harlem. Gay asked him what he was doing out so early. "He explained that, being a very private person, he prefers to stroll around before anyone else is out," she says. (At over 7-foot-1 and with a famous visage, he undoubtedly has trouble going unnoticed.) Abdul-Jabbar bought a town house in Harlem this past winter, according to Kareem Productions.

He joins a wave of black artists, activists, scholars and home-seekers lately drawn to one of the world's signature African-American communities. The poet Maya Angelou and the singer Roberta Flack have bought houses in Harlem. Harvard professor Henry Louis Gates, Jr., who is among the nation's best-known intellectuals, is on the hunt for a Harlem town house.

Contributing to Harlem's cachet is America's most renowned commercial tenant, Bill Clinton. His office occupies the top floor of a building on 125th Street, the neighborhood's main artery. The former president has launched the Harlem Small Business Initiative program, which has provided a dozen struggling or fledgling businesses with professional consultants. "I wanted to be a good neighbor, not just a tourist attraction," says the former president. "I wanted to make a difference in my community. And that meant bringing in resources and talent to help out."

Harlem, a community in northern Manhattan that hit bottom in the 1980s when poverty, neglected housing and drug-related crime took their toll, is enjoying a lively second renaissance. Some Harlemites dismiss the resurgence as little more than a real estate boom, because the neighborhood's magnificent 19th-century town houses are being snapped up at a rapid rate. You'll also hear that the cultural scene doesn't compare with Harlem's first flowering, in the 1920s, which was animated by extraordinary creativity in politics, the arts and especially the written word. But if it's true there are no stand-ins today for fiery W.E.B. Du Bois, gentle Langston Hughes or patrician Duke Ellington, the second renaissance is still taking shape.

Highbrow, mainstream, pop, hip-hop, avant-garde—Harlem's cultural

Jam sessions marked Harlem's first renaissance, whether it was bandleader Cab Calloway ringing in 1938 at the Cotton Club (top) or traffic on 125th Street in 1935 (above).

BETTMANN/CORBIS (2)

Stately architecture such as 1887 row houses on 122nd Street (above) attract tour groups as well as tenants. Paulette Gay, a.k.a. the Scarf Lady (right), set up shop four years ago.

and artistic revival is evident on nearly every block. At the partially renovated Apollo Theater, the curtain went up in July on *Harlem Song*, a Broadway-style musical directed by George C. Wolfe, producer of the Joseph Papp Public Theater/New York Shakespeare Festival. On St. Nicholas Avenue, the three-year-old Classical Theater of Harlem recently staged *King Lear* in its garden court, with Paul Butler playing the title role as an African tribal chief in purple and cinnamon robes. In a 1909 firehouse on Hancock Place, George Faison, choreographer of *The Wiz*, a Broadway hit in the 1970s, is creating a performing arts complex with two theaters, three rehearsal studios and a library.

In another restored firehouse, on West 121st Street, is a small avant-garde gallery, Fire Patrol No. 5 Art. One recent night, a racially mixed crowd sipped wine from paper cups and witnessed a performance by a literary "commando" group called the Unbearables. "Museums were created to bring ugliness into the world!" one male trouper declaimed from the gallery floor. Another, a woman with short blonde hair, recites a poem titled "Balls." Applause was vigorous but not unanimous. A young girl, trying to concentrate on her homework in a corner, piped up, "That was really nasty!"

The performance may not have been for everyone, but it indicates an atmosphere of artistic adventure. Over the decades, different New York neighborhoods have played host to the cutting edge—Greenwich Village in the 1950s, SoHo in the 1970s, the Lower East Side in the 1980s—and Harlem may be remembered as the place to have been at the turn of the millennium. As in other New York golden ages, some of the attraction has been cheap rent. Until a skyrocketing lease chased her north, French-born Christine Louisy-Daniel, the proprietor of Fire Patrol No. 5 Art, had a gallery on the Lower East Side. The grit of the neighborhood around her current venue doesn't faze her. "I come from Versailles, which is beauti-

France-Yanne and Tony Dunoyer (above, left, with daughter Pauline and son Mathieu) have restored their 1890 Harlem town house and filled it with antiques. The 1897 house of Tom Draplin and Beth Venn (right, with son Tom and daughter Ella) boasts five fireplaces.

ful," she says. "But Harlem is *exciting*."

Attesting to that excitement, a growing number of painters and sculptors with international reputations—Ellen Gallagher, Julie Mehretu, Chakaia Booker and Brett Cook-Dizney, to name a few—live and work in Harlem. Ousmane Gueye, a Senegalese sculptor who trained at the École des Beaux Arts in Paris and with Henry Moore in England, shows his art in the P.C.O.G. Gallery on Seventh Avenue, which he co-owns. "My father always turned the radio to music from Harlem when I was a child in Dakar," says Gueye. "It was my dream to get here myself."

THE WORD IS DUTCH, REFLECTING Holland's 1626 acquisition of Manhattan Island from local Indians, and Dutch Governor Peter Stuyvesant's naming the village, in 1658, New Harlem, after a city in his homeland. Today, Harlem is informally divided into three parts. Central and West Harlem stretch roughly from 110th Street (the northern end of Central Park) to 155th Street, and are bounded on the west by the Hudson River and on the east by Fifth Avenue. East Harlem, which has been predominantly Latino, runs from around Madison Avenue to the Harlem River and south to 96th Street. Some 337,000 people live in Harlem, according to the 2000 U.S. census.

Like other urban neighborhoods settled by successive waves of immigrants, Harlem is a story of flux. In the 18th and early 19th centuries, prominent men such as the royalist Roger Morris and the patriot Alexander Hamilton built splendid houses (they still stand) in what was then a rural setting. In the late 1800s came elevated rail service, which brought prosperous commuters from as far away as City Hall, near Manhattan's southern end. Two New York mayors, Thomas Gilroy and Robert Van Wyck, lived in Harlem. So did P. T. Barnum's partner, James Bailey, whose turreted and gabled limestone extravaganza, built in the 1880s, still graces St. Nicholas Place. Around the same time, Protestant gentry erected impressive town houses around Mount Morris Park (now also called Marcus Garvey Memorial Park). Next to settle Harlem were politically connected Roman Catholic families and also prominent Jewish families, including those of Richard Rodgers, Lorenz Hart, Oscar Hammerstein, Walter Winchell and Arthur Hays Sulzberger, grandfather of the current publisher of the *New York Times*. A relic of that period is the Temple Israel on Lenox Avenue; it has a massively columned facade and looks built for the ages. But the synagogue fell into disuse once African-Americans started moving into the community and whites began moving out in large numbers. In 1925, it became Mount Olivet Baptist Church.

The 1920s renaissance was notable for jazz and literature, but it also embraced a newly formed black professional class of doctors, lawyers and architects. Nonetheless, opportunities remained limited for African-Americans in Harlem; a double standard prevailed, with black laborers and entertainers generally working for whites. The Apollo Theater, which opened as a burlesque house in 1913, had white-only audiences until 1934. The Cotton Club, another legendary musical venue, displayed murals of a plantation with slave quarters. "I suppose the idea was to make whites who came to the club feel like they were being catered to and entertained by black slaves," wrote bandleader Cab Calloway. William

**Spray-painted mural portraits by Brett Cook-Dizney "empower" Harlemites, he says.**

Allen, a fourth-generation Harlemite and a community activist, says blacks in the 1920s were performers, not customers. "They were not the owners of real estate," he says. "It was like a Broadway production where the actors had no equity."

Nor did Harlemites have much choice in employment, often having to settle for menial labor in the neighborhood's many white-owned stores. That disparity changed somewhat after Adam Clayton Powell, Jr.'s boycotts in the 1930s, conducted under the banner "Don't Buy Where You Can't Work."

Gerrymandering prevented Harlem from getting black Congressional representation until 1944, when Powell was elected to the first of 12 terms in the newly configured district—a career marred in the end by allegations of misused campaign funds and a reprimand by House leaders that the U.S. Supreme Court ruled was unconstitutional. He was defeated in 1970 by Charles Rangel, Jr., a Harlem native, who is now serving his 16th term. "My grandfather was lucky," says Rangel. "He was able to get a civil service job as an elevator operator at the criminal court building. Like a lot of other guys my age, I got the hell out of Harlem by joining the Army."

As a congressman, Rangel pushed for the creation of "empowerment zones" in battered urban areas, with federal funding and tax credits to fill the vacuum created by the absence of private lenders. In 1992, Bill Clinton signed empowerment legislation, which, matched with city and state funds, provided some $300 million in investment capital in Harlem. The money has percolated into commercial, educational and cultural projects. Rangel was also behind Clinton's move to 125th Street, in July 2001. "I'd suggested Harlem to him while he was still president," says Rangel, "but it seemed to go right over his head. Later, when he was catching hell for the expensive office space he took on West 57th Street, he called me to ask if Harlem was an option. I said, 'Does the sun shine?' He called on a Thursday. On Monday morning, I took his people to see the top floor at 55 West 125th Street. The owner kept saying there was one little problem, which was that a city agency had already leased the space." Rangel and Rudolph Giuliani made the problem go away.

Clinton arrived at a time of rising disquiet among old-line Harlem businesses, which faced rising rents and new competition. "One thing that bothered me about my coming here was that it was likely to increase upward pressure on rents," Clinton told me as we rode though Harlem in an SUV with his secret service detail. But Clinton's consulting program for small businesses aims to boost their revenues and offset the increased costs that often accompany a hot market. "These businesses had low rents, but low revenues too," he said. "They have to update how they operate or they might not survive. If this pilot program has the results I expect, then we'll expand it all over New York and elsewhere in the country."

One of Clinton's education programs, Operation Hope, teaches economic literacy in several Harlem public schools. Another program works with VH1, the cable TV music channel, to donate musical instruments and provide music instruction to public elementary and middle schools in Harlem. "By 2004, no kid in any Harlem school will have to do without a musical instrument," he said. As the motorcade rushed by numerous storefront churches, he added: "If you look at the history of Harlem, it's the history of its churches and its music."

Perhaps the most visible evidence of a revitalized Harlem is the new commerce on Clinton's street. In 2000, an enormous Pathmark supermarket opened on 125th Street. Last year, with a boost from Empowerment Zone funds, Harlem USA, a 275,000-square-foot shopping center between 124th and 125th Streets put a sleek face on the street, housing Old Navy, a Disney store, HMV music, Modell's Sports, and a Magic multiscreen theater, one of several Harlem investments by basketball great "Magic" Johnson.

Those brand-name stores could be in any suburban mall—and that's the point. For too long, national retailers stayed out of Harlem. Especially galling to Harlemites has been the absence of a chain bookstore. So the most eagerly awaited opening at Harlem USA was that in August of Hue-Man Bookstore, which bills itself as the nation's largest black-oriented book emporium. Proprietor Clara Villarosa, former owner of a Denver bookstore, got a $425,000 Empowerment Zone loan.

Other parts of Harlem, though less

crowded than bustling 125th Street, are also in the midst of a business boom. The same chain drugstores that overpopulate downtown are now in Harlem after years of conspicuous absence. Boutiques are popping up too. On Fifth Avenue just above 125th Street, a former private residence now called the Brownstone houses several stylish shops on three floors, including a jewelry store owned by a former buyer for Tiffany & Co., and a tearoom, where late-afternoon patrons may indulge in cucumber, watercress and curried-chicken sandwiches while drinking traditional and herbal teas.

Half a dozen new eateries have taken hold, from the upscale and raffish Jimmy's Uptown, at 2207 Seventh Avenue, to the sedate Sugar Hill Bistro, situated in a 19th-century town house on West 145 Street. Sugar Hill is a nickname for a part of northwest Harlem in which wealthy blacks began to settle in the 1920s, who in the parlance had lots of "sugar," or cash. On Mother's Day, the bistro's ground-floor lounge was filled with people as a singer belted out the words to "This Little Light of Mine." The microphone was passed from table to table so diners could deliver the refrain: "Let it shine, let it shine, let it shine." The easygoing warmth evident here, Harlemites will tell you, is a community trait. Indeed, it's as easy to strike up a conversation with a stranger in Harlem as it is difficult in midtown.

The new Harlem pays homage to the old, as an owner of Sugar Hill Bistro suggested. The bistro is owned by three young black couples, all recently settled in the neighborhood, who never intended to become restaurateurs. "We just wanted to create a place where you get a high-quality cup of coffee, which was unavailable in the community," says part-owner Dr. Dineo Khabele, a gynecologic oncologist. "Every landlord we went to said, 'Why would you want to do that? Nobody up here will pay extra for gourmet coffee.'" Jumpstarted by a $300,000 loan from the Empowerment Zone, they bought a then-vacant town house and redid it top to bottom. The bistro has a first-floor bar leading to a rear garden, a second-floor dining room and a third-floor gallery and cultural space. "It reminds me of what I've heard about A'Lelia Walker's upper-floor room where people could gather," says Khabele, referring to the premier hostess of the first Harlem renaissance, a wealthy patroness of the arts who called her salon the Dark Tower, after a poem by Countee Cullen.

Art Kane's 1958 photograph of Harlem jazz musicians (Dizzy Gillespie, standing, far right, and Count Basie, sitting on the curb) would become a classic poster that still sells today.

THE REBOUND HAS BEEN A LONG TIME coming. After the first renaissance was cut down by the Depression, grim decades followed. For many Harlemites, upward mobility meant forsaking the concrete jungle for a house with a lawn in Brooklyn or Queens, or close-in suburbs such as Yonkers and White Plains, where formerly off-limits housing was opening up to black families. "Integration emptied out our middle class," says Anthony Bowman, owner of the Harlem Gift Shop and Tourism Center. "Harlem had the best name recognition in the world, and all these people moved to St. Albans, Queens."

After the urban riots of the 1960s, the major avenues were renamed: Lenox Avenue became Malcom X Boulevard, Seventh Avenue became Adam Clayton Powell, Jr. Boulevard, and Eighth Avenue became Frederick Douglass Boulevard. Still, many Harlemites prefer the original designations. Some people with whom I spoke on Martin Luther King, Jr. Boulevard used the old name, 125th Street.

At the area's nadir in the 1980s, most of central Harlem's housing was owned by the city in foreclosure for nonpayment of taxes—and by most accounts the city was an indifferent landlord, contributing to the community's housing problems. A breakdown in the social fabric also occurred, some local observers say. "Drugs, despair, abounding vice, idleness, no strong family life," is how those days are remembered by the Rev. Calvin Butts, minister of the Abyssinian Baptist Church, a powerhouse in the community's affairs (and a leading tourist attraction).

Some middle-class African-Americans have stayed in Harlem for the duration, of course. Dabney and Amelia Montgomery, leaders of the Mother African Methodist Episcopal Zion Church on West 137th Street, the oldest black church in the state, bought their town house at 245 West 136st Street in the late 1970s, when a financial crisis made the city's future look scary. Over

ART KANE ESTATE

In a September 2002 update of Kane's enduring image, the neighborhood's Tenant in Chief, Bill Clinton, joins community businesspeople and Harlem's U.S. Little League World Series semifinalists in front of the 126th Street brownstone that graced Kane's picture.

brunch at Londel's, an eight-year-old soul food restaurant on Eighth Avenue, they're asked if buying back then was a pretty brave thing to do.

"Brave?" says Mrs. Montgomery.

"People like us have always been in Harlem," says her husband. "We never worried about the ups and downs."

Arthur Mitchell, founder of Dance Theater of Harlem, makes a similar point about the continuity of Harlem's cultural institutions as we watch a pair of implausibly limber young dancers work out at the group's studio on West 152nd Street. "Boys Choir of Harlem, Jazzmobile, National Black Theater, Studio Museum in Harlem, Apollo Theater, the Schomburg Center—they've all been here for 30 years or more," Mitchell says. "And I founded DTH in 1968. I was born in the community, and I'm bringing it home."

Still, few Harlemites doubt that the community has changed in the past decade. The city encouraged the improvement when it began transferring some of the Harlem properties it possessed to developers, often for as little as $1, and financing renovations. One shining example is West 140th Street, between Seventh and Eighth Avenues. As recently as 1994, it had been described as the worst block in Harlem by the *Daily News*; of 36 tenements, 8 had been abandoned to drug dealers and most of the others were eyesores. "I was reluctant to peep my head onto that block," says Ibo Balton, director of Manhattan planning for the city's Department of Housing Preservation and Development.

But the block responded quickly to an infusion of $33 million in city reconstruction funds. Today, it's pleasant. The buildings' fire escapes are painted aquamarine. The sidewalks are clean and lined with trees.

As in other urban neighborhoods, crime is still a problem, but, as elsewhere, Harlem's rate of crime has dropped. In south Harlem's 28th precinct, the murder rate fell by 80 percent over the past eight years, rape by 54 percent and burglary by 84 percent.

Yes, George Washington slept here—the Morris-Jumel Mansion, a 1765 landmark in a ten-acre park near Harlem's northern boundary.

In central Harlem's 32nd precinct, murders numbered 56 in 1993, 10 in 2001 and 6 in the first nine months of 2002.

Community activism has also fostered recovery. In the late 1970s, state bureaucrats announced plans to convert a row of town houses fronting Mount Morris Park into a drug rehabilitation center. Mount Morrisites banded together and fought the plan, which was dropped. In 1984, the state established a minimum-security women's prison directly on the park's west frontage. Then, in 1990, the state moved to expand the prison into nine adjoining (and vacant) row houses. The neighborhood objected, and prevailed. Now those once-targeted row houses are being turned into condominums.

Abandoned properties persist on the best blocks, including the elite Strivers' Row, but the value of much Harlem real estate has risen sharply. In 1987, a large Federal-style house on Hamilton Terrace sold for what was then a record price of $472,000. This year, a smaller house around the corner is under contract for $1 million. Nearby, a row house in "triple mint" condition sold for more than $2 million.

ONE HALLMARK OF THE SECOND HARLEM renaissance is the return of young black people. Unlike their antecedents in the first renaissance, who lived behind "invisible lines and bars," as the writer Eunice Roberta Hunton put it, well-to-do African-Americans investing in Harlem these days could live just about anywhere. They offer a spectrum of reasons for preferring Harlem.

"I think of myself as a nation builder," Arizona-born Shannon Ayers explains of her motivation for coming to Harlem and opening a spa in a newly renovated, Empire-style building on Lenox Avenue, near the white-brick town house she bought in 1998.

"I'm very attuned to my ancestry, so my spirits brought me here," says city planner Ibo Balton of his move in the early 1990s from the Bronx to a rental property in a former school building on St. Nicholas Avenue. "It's just a place I needed to be." As a sign of the increasingly upscale times, the civil servant quips that he was probably one of the highest paid persons in his building when he got there but is now arguably the lowest.

Willie Kathryn Suggs, a former television producer turned real estate broker, says Harlem puts her at ease. "I wanted to live in Harlem when I came to Manhattan, but my father said no way," she says. "So I got an apartment on East 44th Street. Women there assumed that I must be a domestic. They'd ask if I had an extra day. It didn't matter that I was a TV producer at ABC, dressed to the nines. All they saw was my brown skin. Then I moved to the West Side, and white guys would jingle the change in their pockets and ask me if I was working. They thought I was a hooker!" In 1985, Suggs bought a Harlem town house, which she also uses as an office. "Up here," she says, "people ask me if I'm a teacher. There's a comfort level here that a person of color doesn't have anywhere else. That's why black folks move here."

"For me, it was all about the architecture," says Warner Johnson, an Internet entrepreneur. Johnson led a new generation into the historic Graham Court apartment house, located in Washington Heights. The 1901 building, with its interior courtyard and vast residences, "reflects the grandeur of another age," says Johnson.

"For those of us who are creative, there is a sense of connectivity to Harlem," says interior decorator Sheila Bridges, who also lives at Graham Court. "In no other place have African-Americans made such a contribution to the arts."

In the '20s, white people went to Harlem primarily for entertainment. Today, they also go there to buy homes. Six years ago, Beth Venn and Tom Draplin, who were then renting an apartment in Washington Heights, began a search for a place big enough to raise a family. For the price of a smallish apartment on the Upper West Side, says Venn, they bought a big 1897 house on Hamilton Terrace, around the corner from Hamilton Grange, which was built by Founding Father Alexander Hamilton.

Tom, an architectural illustrator, and Beth, curator of software mogul Peter Norton's art collection, both grew up in "whiter than milk" Midwestern communities, says Beth. "We really wanted our kids to grow up with other cultures and histories," says Tom. But friends and family expressed concerns about their safety. The couple hesitated even to mention the property's location to her father. But when he visited from Illinois to attend their wedding, she recalls, "the people from across the street brought us a bottle of champagne and took Dad over to tour their house. The outpouring of neighborliness was powerful and put everyone at ease."

**Nino Settepani and Leah Abraham (top, with son Seyoum and daughter Bilen) opened their café, Settepani, in 2001. Christine Louisy-Daniel (above) turned a firehouse into a gallery, Fire Patrol No. 5 Art.**

Tony and France-Yanne Dunoyer, originally from French Guadalupe, moved to Convent Avenue three years ago into an 1890 eclectic Victorian house that they have slowly restored. A worker spent almost a year refinishing the elaborate interior woodwork. An electrician installing wiring for sconces discovered a large, double-sided fine mahogany pocket door hidden in the walls. On weekends, the couple hunted for the antique furnishings, which, along with the 1904 Steinway grand piano in the music room, now fill the spacious house.

As Harlem steps into the 21st century, many residents worry that its new prosperity may bring a loss of identity and community. Moreover, some residents are being left behind or displaced, they say. "It's troubling that the working classes and people who have been here a long time can't buy property," says William Allen, the activist and Democratic Party organizer. Louisy-Daniel, the gallery owner, tells of a neighbor who had to vacate her apartment when the landlord raised the monthly rent from $650 to $2,000. "We've been put out," the woman told her. Kira Lynn Harris, an artist-in-residence at the Studio Museum, bluntly articulates a question on the minds of many: "Is Harlem slipping out of the hands of black people?"

Indications are that the community's makeup is changing. Suggs, the broker, estimates that half of her recent home sales are to whites, Asians or Hispanics—more than double the rate five years ago. Still, most Harlem renters are black, and the community's elite town house blocks remain largely in the hands of African-Americans. On Convent Avenue between 142nd and 145th Streets, several richly detailed houses sold in recent years went to black people, including a baronial corner house featured in last year's hit movie *The Royal Tennenbaums*. And while a lot of major development in Harlem is funded by firms that whites control, a Harlem-based company run by African-Americans, Full Spectrum Building and Development, is constructing a 128-unit condominium at 1400 Fifth Avenue. Among other things, the $40 million project will be the first building in Harlem with geothermal heating and cooling.

A longer view of the race issue is taken by Michael Adams, author of the

newly published *Harlem Lost and Found* and one of the community's most ardent preservationists. Adams tells of attending a dinner party in a fastidiously maintained, century-old Harlem town house. One guest griped about a newly arrived white family on his block who had complained about noise coming from a revival meeting. Another guest bemoaned white neighbors who called the police about a loud party. "Why don't these people go back where they came from?" someone asked.

"None of this would have been said, of course, if a white person had been at the table," Adams says. "As I listened to their complaints, I imagined hearing voices in this same dining room eighty years ago. The words were the same, only the colors were reversed."

**Ousmane Gueye listened to jazz as a boy in Senegal and wanted to live in Harlem.**

HARLEM IS DEFINED BY A SET OF GEOgraphic coordinates, to be sure, but also by a feeling, or sensibility. For that reason, the Morris-Jumel Mansion on Edgecombe Avenue at West 160th Street may be said to be part of Harlem, though it's technically just north of the 155th Street administrative boundary. The stately home, which dates from 1765 and which George Washington used as his headquarters for a month during the Revolutionary War, incorporates perhaps the first octagonal room in the Colonies. Shady gardens surround the house, which, improbably, sits on a kind of schist proscenium overlooking the towers of an enormous public housing project on the site of the old Polo Grounds, where the New York Giants played baseball. The Morris-Jumel Historic District, as the neighborhood is called, feels like Harlem, with its dignified homes, including 16 Jumel Terrace, which once belonged to the incomparable singer, actor and fighter for social justice, Paul Robeson.

If you stand under the shade of the oak and hackberry trees on the Morris-Jumel grounds late on a Sunday afternoon, you might hear the most persuasive reason for feeling that you're in

*Jazz, sound track of the Harlem drama, emanates Sundays from the living room of actress and playwright Marjorie Eliot (at the piano).*

# "It's not about OAK BARRELS and chemistry."

A CONVERSATION WITH CLOS DU BOIS WINEMAKER MARGARET DAVENPORT

"It's about emotion and memory. And it all starts with the idea that a wine signifies a place, what the French call 'terroir.' When we go to France, we love to rent a car and just wander. Once we happened into this wonderful little restaurant. Sitting there, looking over the town's ancient tile roofs—and modern antennas—I could see a field of lavender. And when I asked the owner to bring a good bottle of local wine, I swear it tasted like lavender.

"As a winemaker, you have to be alert for things in your wine that can trigger these memories, these moments. Special vineyards. Special soil. Because that's what really resonates with people. And what makes a great wine."

CLOS DU BOIS WINES · SONOMA COUNTY

*Rich as life.*

Please enjoy our wines responsibly. closdubois.com.

© 2002 Allied Domecq Wines USA. Healdsburg, CA.

# Harlem Highlights

Harlem has become an increasingly popular tourist destination because of its history, architecture, arts and music. The second renaissance is focused in the largely African-American Central and West Harlem, which cover roughly 110th to 155th Streets and the Hudson River to Fifth Avenue (see map, left). Historically Latino East Harlem stretches from around Madison Avenue to the Harlem River and north from East 96th Street.

Besides the Morris-Jumel Mansion (65 Jumel Terrace), **architectural** glories include Gothic-style structures such as the All Saints Roman Catholic Church (at 47 East 129th Street). The 1893 Harlem Courthouse (170 East 121st Street) has a soaring tower and a cast-iron staircase. The Hispanic Society of America's museum complex (Broadway between West 155th and 156th Streets) is neoclassical and adorned with sculptures. Harlem architecture from the 18th through the 20th centuries is the subject of an exhibition in February at the Museum of the City of New York (1220 Fifth Avenue). The **arts** are blooming, and the Schomburg Center for Research in Black Culture (515 Lenox Avenue) showcases the *Art of African Women: Empowering Traditions* through March 2003. The Studio Museum in Harlem (144 West 125th Street) presents works by artist Gary Simmons through January.

For gospel **music**, check out the Mt. Neboh Baptist Church (1883 Seventh Avenue) and the Canaan Baptist Church (132 West 116th Street). Jazz spots include St. Nick's Pub (773 St. Nicholas Avenue), Showman's (375 West 125th Street) and Lenox Lounge (288 Lenox Avenue). Luci's (124th Street and Eighth Avenue) features swing dancing on Mondays. **Tours** are conducted by the Harlem Gift Shop and Tourism Center (2224 Eighth Avenue) and by preservationist-author Michael Henry Adams (212-426-5757). **Restaurants** abound, including such favorites as Sylvia's (328 Lenox Avenue), M & G's Diner (383 West 125th Street), Londel's ( 2620 Eighth Avenue) and Miss Maude's Spoonbread Too (547 Lenox Avenue).

Harlem: jazz, wafting out of an apartment house across the street. The sessions take place in the third-floor apartment of Marjorie Eliot, an actress, playwright and jazz pianist. Eliot's 28-year-old son, Phillip, died of kidney disease in the summer of 1992. To mark the first anniversary of his death, she hired jazz musicians to play on the lawn of the mansion. Eventually, she had musicians play in her apartment on Sundays. Her living room, decorated since September 11 with a small cutout of an American flag, holds several dozen metal folding chairs. She serves juice and cookies. Though a tin is passed around for donations, no contribution is required. "Clubs are so costly," she says, "and musicians don't get a chance to stretch out and play. I want people to experience music uncompromised by commercial constraints."

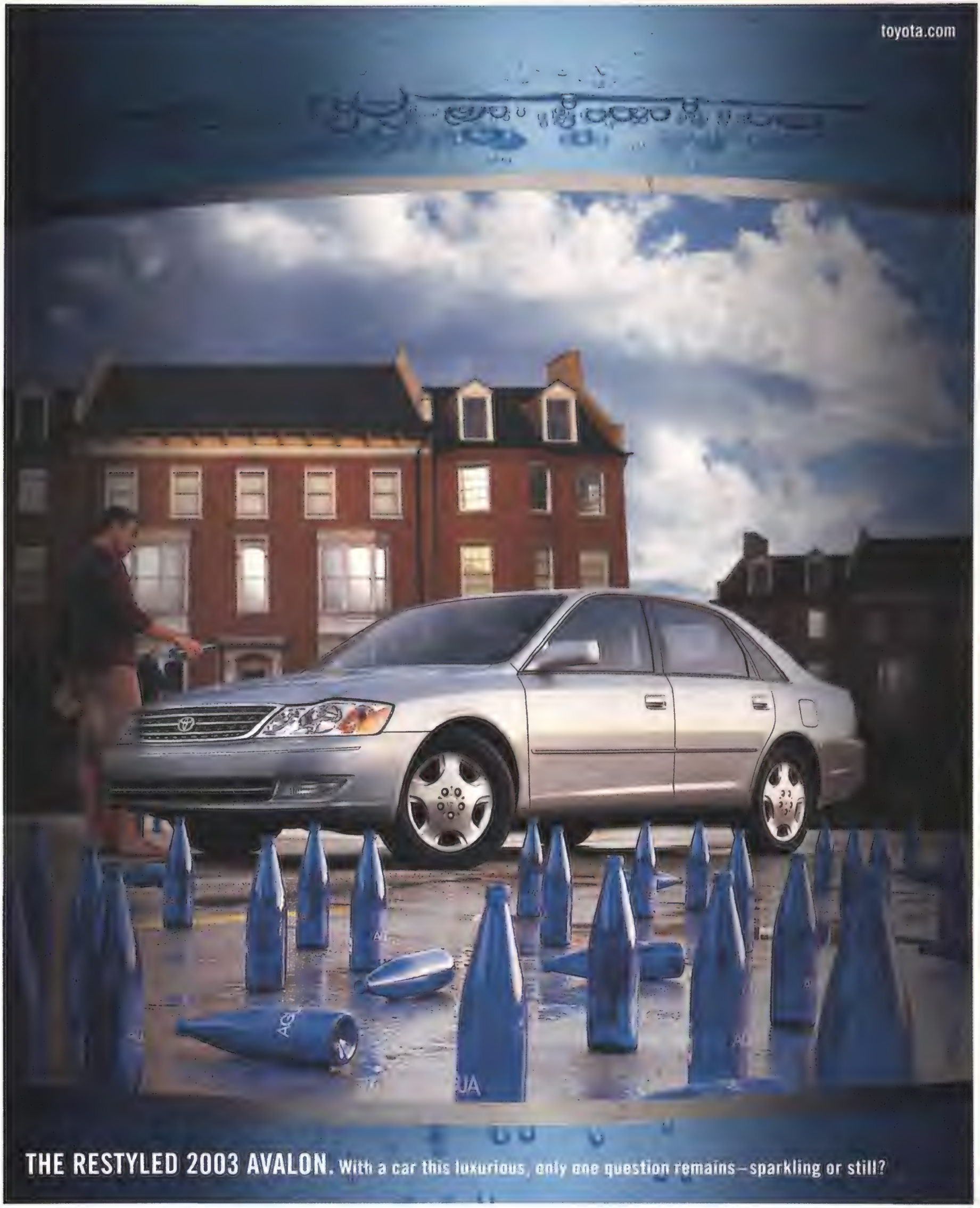
The nightclubs of the first Harlem renaissance are gone. Last June, a plaque was belatedly dedicated to mark the Seventh Avenue site of the Savoy Ballroom, once the "Home of Happy Feet" and the Lindy Hop. It's now a housing project. Nothing marks the site of the original Cotton Club a block away. A club by that name today on West 125th Street caters largely to tourists, with offerings like a Sunday gospel brunch.

The Apollo Theater, which introduced or helped launch the careers of artists such as Ella Fitzgerald, Sarah Vaughn and James Brown, deteriorated over the years, despite the popularity of its Wednesday amateur night shows. A ballyhooed 1992 renovation barely stemmed the decline, and a more extensive, $53 million renovation is under way. But a widely trumpeted plan to incorporate the shuttered Victoria Theater a few doors away was postponed in September due to fears that the economic climate could result in lower-than-budgeted revenues and donations.

The postponement was a blow to some in the community and a snag in its otherwise dazzling comeback. But the second Harlem renaissance is far bigger than any one reconstruction project. Investment in the place remains strong, and its undeniable mystique continues to grow. You can sense that energy at the sold-out performances of *Harlem Song*, the Apollo's first long-running show, in which a supercharged cast dances and sings its way through 20 musical numbers touching on the community's history. On the night I attended, the audience looked prosperous and included members of the city's financial and political elites. The most familiar songs, like 1933's "Drop Me Off in Harlem," were from another heyday, but the natty throng and the limousines jockeying at the curb were very much of this one.

*Peter Hellman is a freelance writer in New York City. Photographer Jeffrey Henson Scales has lived in Harlem for the past 18 years.*

ELIZABETH WOLF



©2002 Toyota Motor Sales, U.S.A., Inc.

# Holiday Gift Guide

## astimeflies.com
*signature calendars*

**Egrets 2003.** 11" x 14" luxury calendar — 12 stunning original photos of egrets in their natural Connecticut coastline habitat ($24.95), Notecards ($16.95). Portion of proceeds benefit charities. Order: **www.astimeflies.com**, **1-800-476-4626**, Checks/MOs to: As Time Flies, P.O. Box 4373, Greenwich, CT 06831. Shipping/tax included.

## Barefoot Books
*Celebrating Art and Story*

Books that open the hearts and minds of children from all walks of life, inspiring them to read deeper, search further, and explore their own creative gifts. Beautiful picture books, cross-cultural anthologies, CDs, prints and much more! FREE CATACLOG. **866-417-2369 · www.barefootbooks.com**

## Beau Ties Ltd.
*of Vermont*

Our catalogs feature a constantly changing collection of Vermont handcrafted bow ties, as well as ascots, cravats, cummerbunds, fine shirts for men and beautiful scarves for women. To request a free catalog, call **1-800-488-8437** or peruse our web site at **www.beautiesltd.com**.

## Shoe of Choice for Comfort

BIRKENSTOCK® EXPRESS
*A Service of Footwise, Inc.*

We deliver the legendary comfort of Birkenstock. Over 400 choices for men, women, and kids too! Experience our friendly, easy and fast service. Gift services available. Online bargains · Repair services · Free catalog
**birkenstockexpress.com · (800) 451-1459**

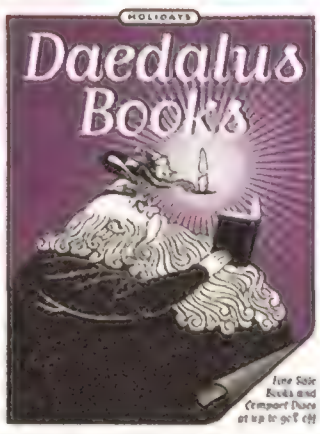
## THE BOW TIE CLUB
www.bowtieclub.com

Visit us at **www.bowtieclub.com** for a selection of over 160 bow ties all made in Maryland of the finest silks from around the world! Join the Club today, membership is free and includes a full color catalog. **1-888-BOW-TIES**.

## Cross-Culture
TRAVEL WITH A DIFFERENCE

Cultural, special interest small-group tours & hiking programs in 33 countries: Western & Central Europe, Asia, Australia & New Zealand; 17th year of in-depth itineraries include off-the-beaten-track visits, truly all-inclusive prices, exceptional value; FREE catalog: **www.crossculturеinc.com · 800-491-1148**

## Daedalus Books & Music




Daedalus Books & Music catalogs feature thousands of new overstock books and CDs priced at less than half-price. Children's books, 2003 calendars and books in history, photography, birding, science, crafts and other subjects are deeply discounted. New classical music, jazz, and blues CDs are priced as low as $5.98 each. FREE catalog: **1-800-395-2665** or go to **www.salebooks.com**.

## EDWARD R. HAMILTON,
*Bookseller*

Edward R. Hamilton, Bookseller. Save up to 80%! Shop America's largest selection of quality bargain books. Recent overstocks, imports and reprints, plus current books at up to 30% savings. Free catalog offers thousands of titles in over 60 subjects. **800-677-3483** or **www.erhbooks.com/fbb**.

## FRANK LLOYD WRIGHT
Home for Sale
near Lansing, MI

Designed by Wright and completed in 1958, this remarkable home has 3,700 Sq Ft and rests on several acres of land. 5BRs, 4 baths, family room, partial basement and a 20' x 40' pool. Living and dining areas have one continuous flow of framed glass windows. Offered at $2.2 million. Contact Don Schaberg at either **517-349-3045** or **www.DONSCHA.com**.

## geezer.com℠

12,000 handcrafted items & 1,200 senior artists offering one-of-a-kind gifts for your distinctive sense of style. **1-877-803-1468 · www.geezer.com**

## Maine Holiday Wreaths

### The Perfect Gift

Beautifully hand-crafted of freshly cut balsam fir, pine cones, red apples, and a red velveteen ribbon. Approx. 22" diameter $24.95 (+$6.95 S&H). Quantity prices. Call **800-776-8778** 8am - 6pm EST, Monday -Saturday · P.O. Box 536-S, Ellsworth, ME 04605 · **www.maineholidaywreaths.com**

## *The Masters' Collection*

Replica oil painting masterpieces a world apart from other reproductions. Artist's canvas, hand-brush stroked, museum quality frames. 100s of works, accent size to over-sized. Free catalog.
Call **1-800-2-CANVAS, Dept. 1436 · www.masterscollection.com**

## Sadigh Gallery
ANCIENT ART INC

**Own a Piece of History.** Specializing in ancient artifacts & coins, Prehistoric, Egyptian, Greek, Roman Byzantine, Near Eastern, African & Oriental at WHOLESALE PRICES with Certificate of Authenticity. **All CC.** 24H Shipping. **FREE CATALOG, 800-426-2007**
303 Fifth Avenue, Suite 1603 · New York, NY 10016

## TeCHno.RoMånTic
JEWELRY OBJECTS

designed by
THOMAS MANN

thomasmann.com

Do something different this holiday season. Thomas Mann TechnoRoManTic Jewelry Objects speak to people of all ages. Special Holiday Offer: Pocket Hearts & Charms $2 each. Order online at **thomasmann.com** with this special code SM1102 and receive a 15% discount, or call **800-923-2284.**

## *Holiday Gift Guide 2002 Directory*

**As Time Flies Signature Calendars**
1-800-476-4626 · www.astimeflies.com

**Barefoot Books**
866-417-2369 · www.barefootbooks.com

**Beau Ties Ltd.**
1-800-488-8437 · www.beautiesltd.com

**Birkenstock Express**
800-451-1459 · www.birkenstockexpress.com

**The Bow Tie Club**
888-BOW-TIES · www.bowtieclub.com

**Cross-Culture**
800-491-1148 · www.crossculturеinc.com

**Daedalus Books**
1-800-395-2665 · www.salebooks.com

**Edward R. Hamilton, Bookseller**
800-677-3483 · www.erhbooks.com/fbb

**Frank Lloyd Wright Home for Sale**
517-349-3045 · www.DONSCHA.com

**Geezer.com**
877-803-1468 · www.geezer.com

**Maine Holiday Wreaths**
800-776-8778 · www.maineholidaywreaths.com

**The Masters' Collection**
1-800-2-CANVAS · www.masterscollection.com

**Sadigh Gallery**
800-426-2007

**Thomas Mann TechnoRoManTic Jewelry Objects**
800-923-2284 · www.thomasmann.com

**Thundering Herd**
800-525-9730 · email: thunderinghrd@aol.com

**Time by Design**
800-721-2611 · www.timebydesign.com

## THUNDERING HERD

Traditional American buffalo robe — a furry winter hide tanned to a soft buckskin. These lustrous furs come from ranched buffalo. Buffalo are not an endangered species. Write or call for a free catalog of a full range of buffalo products. **800-525-9730 · email: thunderinghrd@aol.com**

## TIME BY DESIGN

**A New Way to Tell Time®** Accumulating minutes circle each hour. Seconds pass through. Annodized aluminum case in choice of silver, black or blue. Leather strap, mineral glass crystal, single set control. $120. To order **800-721-2611, www.timebydesign.com**

"I really did mean for people to cry," Maya Lin (above) says of the Wall.

# Monumental Achievement

## As the Vietnam Memorial Turns 20, Architect Maya Lin Strives To Go Beyond the Wall

BY ROBERT F. HOWE

YEARS AFTER THE VIETNAM WAR ENDED, my father and I, who had differed on the war and many other things in those contentious days, visited the Vietnam Veterans Memorial on the Mall in Washington, D.C. The great black-granite chevron carved into the earth has 247-foot-long wings that rise from ground level at each end to ten feet at the apex, and as we slowly walked down the slope and into the memorial, we separately scanned the names of American men and women killed in the war. We weren't searching for anyone in particular, just reading a name here, another there, trying to comprehend the scope of human loss. Then, reflected together in the high sheen of the stone panels, we saw each other, and our tears began.

Never has a wall—a structure that divides—done so much to unite. Its power to create a common ground, to stir deep emotions and even to heal (to use that overused word) is difficult to pinpoint. But the Wall has certainly played a profound role in our national life, and its impact has

not diminished since its unveiling, after much controversy, 20 years ago this month. It is one of the most visited monuments in Washington, D.C., drawing about four million people annually, and is arguably our most compelling shrine. The National Park Service has collected more than 65,000 artifacts left there by visitors, including service medals, combat boots, flowers, hand-scrawled poems and family photographs. From architects, artists and experts, the Wall has summoned superlatives. Christopher Knight, art critic for the *Los Angeles Times*, declared in 2000 that the Vietnam Veterans Memorial is the "greatest aesthetic achievement in an American public monument in the 20th century."

The story of the monument is inseparable from that of its artistic creator, Maya Lin, who was a mere 21-year-old undergraduate when her design was chosen, in 1981, out of a field of more than a thousand proposals. Though she did no research on the Vietnam War prior to creating her design—she didn't want to be swayed by politics—Lin sensed that Americans were still in pain. She believed they yearned for a proper setting from which to reflect on the consequences of that torturous engagement and to mourn the lives that were lost. "I was trying to come to some understanding of mourning and grieving," Lin recalls. "We as Americans are more afraid of death and aging than many other cultures—we don't want to accept it or deal with it. So when the memorial was under construction, the reaction was, 'It's too subtle, it's too personal, I don't get this, it won't work.' But the fact that it does work may say something about what the American public really needed."

Lin achieved an uncomfortable fame because of the memorial and the controversies that at first swirled around her design, and would decline to discuss the experience publicly for more than a decade. "I couldn't deal with it," she says. Filmmakers Freida Lee Mock and Terry Sanders finally dissolved that reluctance while creating *Maya Lin: A Strong Clear Vision*, their documentary that won an Academy Award in 1995. Since then, the rift that had grown between Lin and a lot of Vietnam veterans closed. "Wherever I go, veterans will come to my lectures and say thank you," she says. "It's really powerful. They're a little teary, I'm a little teary. I end up thanking them."

Now 43, Lin lives in New York City with her husband, Daniel Wolf, an art dealer, and their two young daughters. She is reticent, has a slight physique, and often wears the black clothing that is de rigueur in SoHo, where she keeps a studio. She is currently engaged in a dozen design and renovation projects, such as a sculpture center in Long Island City, New York, and a chapel for the Children's Defense Fund in Clinton, Tennessee. A recent commission will consist of installations along the Columbia River in Washington State marking the Lewis and Clark expedition while also acknowledging Native American and environmental concerns. Her work has frequently tested the boundaries between architecture and art—a tension that she cultivates. Her sculptures have drawn crowds to gallery shows, and she is in demand as a lecturer. She has also produced a line of minimalist furniture. Perhaps reflecting her penchant for juggling many projects at once, her studio has a welcoming discombobulated feel, with two

**A student when she designed the memorial (below, left, in 1981), she sketched a rift in the earth (below, right) that would become an eloquent roll call of the dead (opposite).**

BETTMANN/CORBIS; LIBRARY OF CONGRESS; P. 90 ENRICO FERORELLI; P. 91 PETER MARLOW/MAGNUM PHOTOS; P. 93 GAIL MOONEY

cats on the prowl and piles of books and architectural models here and there. "I have to model everything," she says. "I can't see in two dimensions." One of her first models of the Wall was constructed, in a college dormitory, of mashed potatoes.

Her designs since the Vietnam War memorial have many of the attributes that made the Wall a triumph, such as a respect for nature and a less-is-more aesthetic. "I do like the simplicity of her work, the way she strips things down," says Carl Pucci, a New York City architect who has followed her progress since her undergraduate days. "And she's gained confidence in that style over the years."

After the veterans piece, she went on to produce other memorials, and in response to requests, she has sketched ideas for a World Trade Center memorial. Though she insists that she won't be officially involved in creating one, the fact that she springs to mind as a prime candidate for that immense and solemn undertaking is ample evidence that Americans have grown to appreciate her singular talent.

THE PROTESTS BEGAN SHORTLY AFTER Lin's design was chosen. The business executive and future presidential candidate Ross Perot argued that veterans would be better served by a parade than by Lin's design. Tom Wolfe, who had criticized abstract art in his 1981 book *From Bauhaus to Our House*, noted that the modernist memorial disappointed Vietnam veterans. "They wanted a memorial that honored them as courageous soldiers, no matter what anybody thought of the war itself," he recalls today. Some veterans objected that an amateur—a female of Asian parentage, no less—was to design the monument.

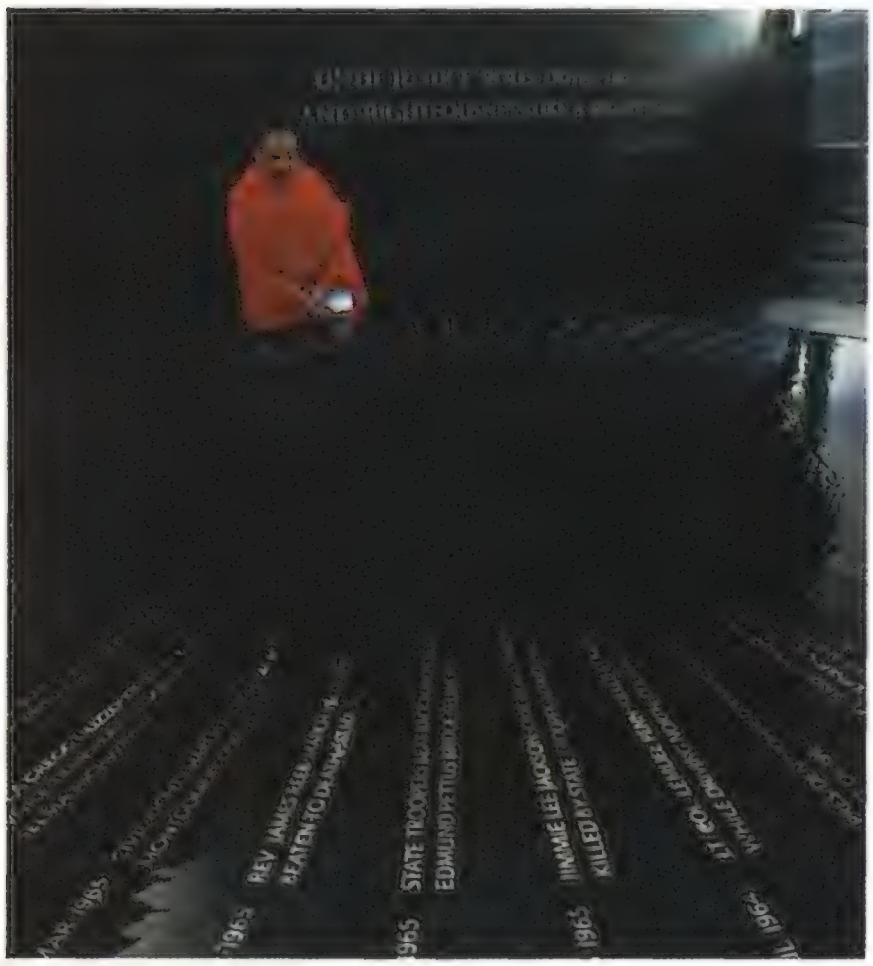
"The thing completely blew out of proportion, insofar as the Wall became a Rorschach inkblot test for unresolved feelings about the war," recalls Jan Scruggs, who initiated the drive to build the monument.

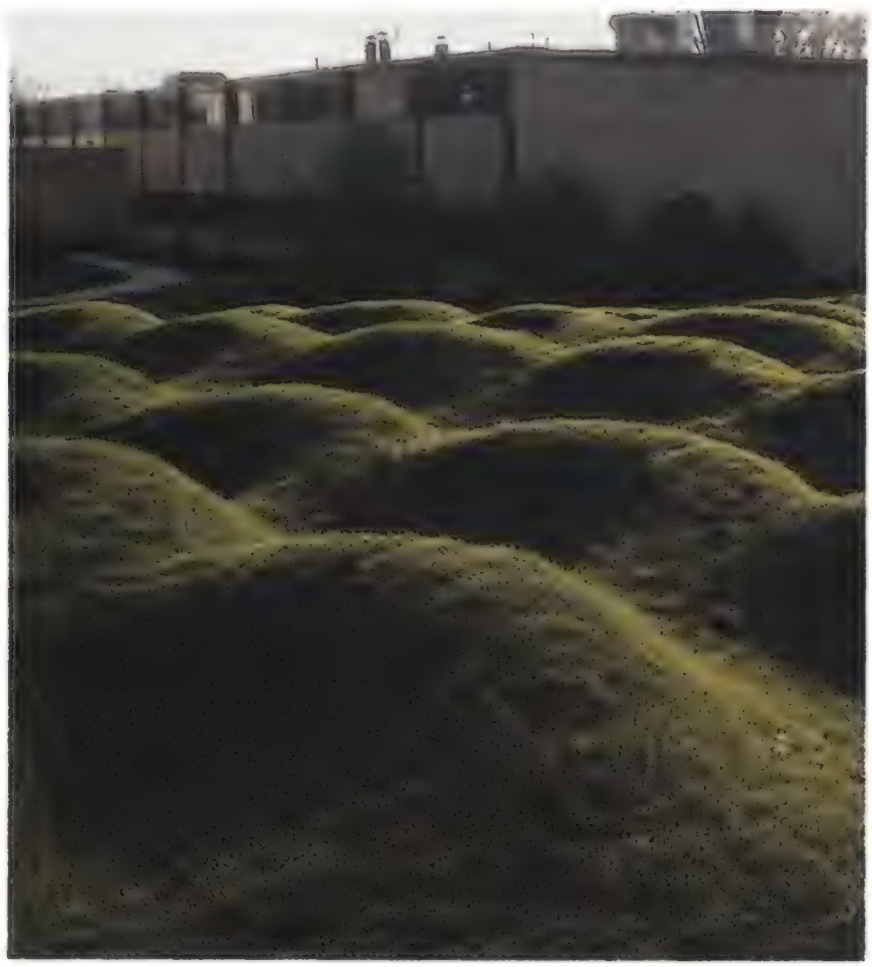
Scruggs, originally from Bowie, Maryland, was a Vietnam veteran—an infantryman who lost friends in the war and was seriously wounded himself. In May 1977, while a graduate student in counseling at American University in Washington, D.C., he wrote an editorial for the *Washington Post* lamenting the "indifference and lack of compassion that the veterans have received," and calling for a national monument to "remind an ungrateful nation of what it has done to its sons."

Two years later, Scruggs and other veterans started the Vietnam Veterans Memorial Fund. The following year, Senator Charles Mathias, Jr., introduced legislation that created a site for the memorial on two acres of federal land between the Lincoln Memorial and the Washington Monument. "What we were talking about was reconciliation," says Mathias, a Republican from Maryland who had been a vocal opponent of American involvement in Vietnam. "We were trying to put the war into perspective by commemorating the service of those men and women. That hadn't truly been recognized, and that was a clear omission." In 1980, President Carter signed the bill into law.

Afterward, more than 275,000 individuals, civic groups, unions and corporations contributed $8.4 million to the war memorial fund, which sponsored an open competition for the monument's design. In May of 1981, af-

In the Lin-designed 1989 Civil Rights Memorial, water flows over a timeline of the struggle. In her 1995 installation Wave Field, terra firma mimics the sea.



RAYMOND GEHMAN/CORBIS; TIM THAYER

TIMOTHY HURSLEY

**Blending old and new, Lin salvaged an 1860s barn for the Langston Hughes Library in Clinton, Tennessee (above), in 1999.**

ter reviewing 1,421 entries (including a two-story combat boot, a two-acre flag and a 40-foot rocking chair), the eight-member jury of architects and sculptors announced that the winner of the $20,000 competition was Maya Ying Lin, the daughter of two native Chinese who had fled Mao's Communist regime and settled in Athens, Ohio. Her late father was a ceramicist and dean of fine arts at Ohio University; her mother, now retired, taught literature at the college.

Maya Lin, an architecture student at Yale University, had entered the competition as an assignment for a funereal architecture class. The drawings for her winning concept are deceptively simple—an extended black V suspended in a murky blue-green wash. "They almost look like kindergarten drawings. A lay jury would never, never have chosen that design," says Paul Spreiregen, a Washington-based architect who organized the competition and helped select the judging panel. But he views Lin's design as an effective symbol: "It's a rift in the earth, as the war was a tear in the fabric of the American experience."

Lin accompanied her drawings with an essay, handwritten on a single sheet of paper, that helped make her case. "For death is in the end a personal and private matter," she wrote, "and the area contained within this memorial is a quiet place meant for personal reflection and private reckoning."

Though the judges selected her design, she had to fight to see it built as envisioned. Some members of the veterans committee wanted the names of the dead listed alphabetically, to make locating friends or loved ones easier. But Lin argued that dozens of Joneses and Smiths lined up in rows would prove monotonous. Plus, she wanted to depict the passing of time from America's first fatality in Vietnam, in 1959, to the last, in 1975. Initially, she thought that the chronology would begin at the far western point and play out as one walks east. But on the advice of an architect who evaluated her classwork, she began the chronology in the center instead, and continued it along the eastern wing before resuming at the start of the western wing and finishing at the center. That way, time loops back on itself, symbolizing closure. (Indexes at the site help people find specific names.)

No sooner had the plans been made public than proponents of heroic statuary objected. Some veterans grew so vociferous that Secretary of the Interior James Watt told the Memorial Fund to

look for an alternative design. Scruggs says he was one of Lin's staunchest supporters, but his group was torn between defending her design and achieving its goal of building a memorial by the fall of 1982.

Practically every detail was debated. Lin had chosen black granite because, when polished, it is reflective. But opponents objected. "There were some young officers calling the wall the black gash of shame," says Brig. Gen. George Price, a member of the veterans memorial advisory board and an African-American. "I just lost it and said that they were dealing with an issue that had racial overtones inconsistent with the principles behind the memorial. I thought we went through the riots of the '60s to set that record straight."

Many critics who attacked the design were appeased after Gen. Michael Davison, an adviser to the memorial group, proposed that a conventional representational statue be added to it. Lin opposed the change, but the Memorial Fund commissioned the sculptor Frederick Hart, who died in 1999, to create a statue. "Hart looked me straight in the face and said, 'My statue is going to improve your memorial,'" recalls a still-indignant Lin. "How can an artist say that? And at this time, the statue would have gone at the apex, and their heads would have stood above the wall." In a compromise, Hart's statue, which depicts three resolute foot soldiers, would be situated about 120 feet from the Wall's western ramp. It was dedicated in 1984. (Memorials remain a contentious matter, as shown by recent debate over the location of the National World War II Memorial, scheduled to open on the Mall in 2004. Opponents say the plaza, pillars and arches disrupt foot traffic and the beauty of the site, at the eastern end of the Reflecting Pool.)

As Scruggs recalls, the main source of the controversy wasn't Lin's background but the work itself. "For the vast majority, it was not who she was, but the fact that this was a highly unconventional monument," he says. "Because this was different, it didn't register with people as being exciting and brilliant. Sometimes you have to build a work of architecture and have people visit it before they will understand it."

The turmoil leading up to the creation of the Wall gave way to eager anticipation. In mid-November 1982, more than 150,000 veterans assembled in Washington for a five-day homage that included a candlelight vigil, a reading aloud of the 57,939 names then inscribed on the Wall and a triumphant parade. For many Vietnam veterans, it was the first time they were cheered. Thousands jammed into the memorial site for the dedication on November 13. President Reagan, however, wary of political fallout, did not attend.

The Wall's success spurred others to seek recognition for Vietnam War-era sacrifices. In 1984, Diane Evans, an Army nurse stationed in Vietnam, embarked on a nine-year bureaucratic quest to memorialize the many women who had served there, primarily as nurses and support staff. A statue commemorating women's service in the war, designed by Santa Fe-based Glenna Goodacre, was installed near the memorial in 1993.

In some ways, the site would become a catchall for Vietnam War history. Congress has authorized a plaque honoring American service personnel who died of exposure to the defoliant chemical Agent Orange. There has also been discussion of acknowledging CIA operatives who died in Vietnam. Meanwhile, the Vietnam Veterans Memorial Fund favors the construction of an 8,000-square-foot education center that would be constructed underground at (or near) the memorial. Proponents, who argue that such a facility would be especially valuable to young visitors, have some influential backers, like Senator John Kerry (D-Mass.), a Vietnam veteran and presumed presidential hopeful in 2004.

But some people, including Lin, contend that adding elements to the memorial site dilutes the original vision. "There's an assumption in Washington that you can make everyone happy just by adding to the memorial," Lin says. "Designing by committee for political agendas is a really bad idea." John Parsons, associate regional director of

**"She's gained confidence in that style," one architect says of Lin's spare, nature-inspired aesthetic, evident inside the Langston Hughes Library (below).**

TIMOTHY HURSLEY

# Stamps everywhere

brought to you by UNITED STATES POSTAL SERVICE.

**Wherever you find this symbol, you'll find stamps.** Stamps at supermarkets, stamps by phone, stamps online and stamps at ATMs.

Eagle symbol is a registered trademark of the United States Postal Service. ©2002 United States Postal Service

www.usps.com 1-800-STAMPS24

the National Park Service, which administers the memorial, voiced his disapproval to a Congressional committee reviewing the proposal. "Memorials should stand alone," he says. "They should speak for themselves, and should not have ancillary educational facilities that detract from the emotional experience."

The Memorial Fund, meanwhile, continues its work. It backed the creation, in 1996, of a half-scale replica of the memorial, known as the Wall that Heals, which has traveled to more than 100 towns. The group also commissioned a teacher's curriculum on the Vietnam War that has been distributed to schools across the country. Scruggs now leads a related group attempting to rid Vietnam of land mines left during the war. And the Memorial Fund's corporate council has raised money to buy computers for schools in Vietnam.

And, since 1998, the memorial has had a counterpart in cyberspace. The Virtual Wall (www.thevirtualwall.org) presents vignettes about every American killed in Vietnam and includes essays by veterans and others marking the memorial's 20th anniversary. Stanley Karnow, author of *Vietnam: A History*, writes on the Web site that the monument "stands as a vivid symbol of both unity and redemption. The Wall was originally intended to commemorate the dead, and it has succeeded admirably. But it is currently transcending that function to become an instrument of goodwill."

THE SUCCESS OF THE VIETNAM MEmorial made Lin an obvious choice for other projects that aimed for quiet eloquence. But after graduating from Yale and going on to earn a master's degree in architecture there in 1986, she turned down offers to design monuments, worried that she might become typecast. And, she says, she feared that she might not again conceive of a memorial as inspired as the Wall.

Then, in the spring of 1988, while working toward an internship at a New York architectural firm, she was asked by the Southern Poverty Law Center in Montgomery, Alabama, a pioneering civil rights group, to design a memorial to Americans who fought for racial justice. She accepted, immersed herself in the movement's history and found a theme in Dr. Martin Luther King, Jr.'s 1963 "I Have a Dream" speech, in which he said the struggle for equality would not end "until justice rolls down like waters and righteousness like a mighty stream." Lin had King's phrase engraved into the curved black-granite stone wall that serves as the memorial's backdrop. Water flows down the wall and wells up from the center of a 12-foot-diameter stone table onto which a timeline of the civil rights movement is engraved, from the U.S. Supreme Court's landmark *Brown v. Board of Education* ruling in 1954 to the assassination of King in 1968. Dedicated 13 years ago this month, the Civil Rights Memorial was an instant sensation. Visitors feel compelled to touch it, as they do the Wall, and run their fingers through the moving water.

"I'm asking for a one-on-one relationship between the viewer and the work," Lin says of her memorials. "They're large-scale artworks, but they are anti-monumental. No matter how large the piece might be, in the end, it breaks down to an intimate, psychological experience."

A subsequent project by Lin was

**Seeking a "visual connection between the inside and outside," Lin used a water wall, olive trees and a wavy floor in an American Express indoor courtyard in Minneapolis.**

PETER WONG/AMERICAN EXPRESS FINANCIAL ADVISORS

closer to home. Installed at Yale in 1993, it is a tribute to women at the college (founded in 1701), who studied or worked on the campus beginning in 1873. Water flows across the top of the granite Women's Table, which is scored with a spiral of numbers radiating from the center and representing the number of women students year by year, from zero to 5,225 in 1993.

Lin's love of nature's handiwork is evident in one of her favorite installations, Wave Field, dedicated in 1995 on the campus of the University of Michigan in Ann Arbor. Inspired by a photograph of water waves in a book, she reshaped a campus quadrangle into a series of gently undulating berms. She raked the "waves" herself before the grass was laid down. "When you walk up to it, it's completely changing, it unfolds before you," she explains. "What I'm not after is trying to re-create nature, but to use nature as a taking off point. It's a way of looking at a natural landscape through an unexpected lens."

Last spring, she completed another installation that challenges perception: an indoor courtyard at the American Express corporate office in Minneapolis. The square is enclosed by glass walls. Water flows down one wall in warm weather. During winter, the water freezes, changing the appearance of the courtyard as well as the view. The wave-like hardwood floor evokes a natural landscape.

Currently, Lin is designing four private houses. In her 2000 book *Boundaries*, she describes her design style as one that borrows elements from Japanese temples and Shaker, Scandinavian and early modernist ideals. She favors uncluttered space, natural materials and as much natural light as she can coax into the interiors. In the only house she has so far completed from the foundation up, a residence in Williamstown, Massachusetts, built in 1994, she brought nature into play with a roof that has peaks and valleys, mimicking nearby mountains. A New York City apartment she designed in 1998 echoes Japanese tradition. Adjacent bathrooms can be combined by removing a temporary wall. Two of the apartment's three bedrooms can also be made one by rolling away a wardrobe.

But if Lin's career has moved beyond memorials, she continues to think about the form. In addition to her sketches for a World Trade Center memorial, which were published in September in the *New York Times Magazine*, she has written in *Boundaries* of a sort of ultimate, still loosely imagined memorial, what she calls the Extinction Project. Just as the Wall impresses upon visitors that we suffered a great collective loss, it would commemorate animals, plants and habitats that have vanished, with markers placed at sites such as Yellowstone National Park, Antarctica, Tibet, the Amazon forest and also on the ocean floor. "I completely believe that the natural environment is more beautiful than anything we as people or artists can create," says Lin, who is a trustee of the Natural Resources Defense Council. The extinction memorial, she says, "is really about focusing on biodiversity and the loss of the land that you need to sustain a diverse planet. That one is going to be political—as if the others were not. Of course it's political. I'm political. That's where I have also evolved."

*Robert F. Howe is a freelance writer based in Occidental, California.*

**A New York residence designed by Lin (below, left) is adaptable, "like origami or a transformer toy," says the architect (below, right) in her studio with Ranch the cat.**

ERIC BORMAN; ENRICO FERORELLI

Inquisitive, formidable and endangered, giant otters are luring tourists by the thousands to Brazil's unspoiled, biodiverse waterscape

BY DEREK GRZELEWSKI

PHOTOGRAPHS BY THEO ALLOFS

# Otterly FASCINATING

Giant river otters, which can grow to 70 pounds and six feet in length, thrive in the watery region of southern Brazil known as the Pantanal (above). They pop their heads out of the water to keep track of family members.

BLOODCURDLING CRIES SHATTER THE STILLNESS OF dusk in the Pantanal, in southern Brazil, as if a pack of wolves were gathering for a hunt. The urgent yelping silences all other wildlife: the squawking of hyacinth macaws, the grunting of caimans, the growl of an ever-elusive jaguar. Even my guide, Senhor Japão, cuts the outboard of our aluminum-hulled skiff, and we drift silently on the barely perceptible current of the Rio Negro.

Under the dome of fading sky, the river cuts a twisting avenue through the forest. And then we come upon what we have journeyed here to see: a mob of agile, seal-like animals, twisting and dodging through the water, leapfrogging one another, overtaking our boat easily and casting curious but hurried glances at us.

"*Lobos de agua*?" I whisper to Senhor Japão in Spanish, his and my second language. "Water wolves?"

"*Sí, ariranhas*," he says, using their Portuguese name.

The giant river otters pass around the next bend in the river, and their caterwauling reaches a crescendo. There are violent splashes, followed by the sound of large bodies crashing through the undergrowth. Then, the droning of insects and the chatter of birds resume. With a casual slap, Senhor Japão dispatches the first mosquito of the evening. The ariranhas have crossed to an oxbow lake, he says; perhaps they have a den there. We, too, must return home to the ranch, or *fazenda*, also called the Rio Negro. He fires up the outboard and makes a swooping turn, racing the darkness.

This is my first day in the Pantanal, the world's largest freshwater wetlands, which spreads across 54,000 square miles of Brazil, Bolivia and Paraguay. In Brazil alone, the Pantanal covers an area the size of Kansas—an Everglades-like waterscape of oxbow lakes, woodlands and savannas—that harbors the highest concentration of tropical wildlife in all of South America.

The Fazenda Rio Negro is a cluster of terra-cotta-roofed structures built around a whitewashed 1920s mansion with spacious verandas and a tiny family chapel. The 19,400-acre fazenda is one of about 1,100 large cattle ranches spread across the Pantanal. Even with these livestock operations, this area of Brazil remained almost unknown until about a decade ago. Then, in 1994, the area became the setting for *Pantanal*, a Brazilian soap opera whose beautiful heroine had the curious habit of morphing into a female jaguar. Set against stunning vistas and a superabundance of wildlife, the program proved an instant hit, and the Pantanal was

**At left, from top: A caiman, a South American crocodile species, attempts to steal a fish from an otter. The otter drops the fish, then retrieves it and escapes. These adversaries often vie for food.**

The entrance tunnel, often 15 feet long, leads to a grand chamber with a floor area the size of a suburban living room, large enough to accommodate an otter family.

"discovered." One by one, the fazendas became centers for a lucrative trade in ecotourism. In 2000, the onetime backwater welcomed a million such visitors, who came to view its rich biodiversity on Serengeti-style safaris. International environmental organizations also began to take note of the Pantanal. In May 1999, Conservation International (CI), a nonprofit Washington-based environmental group, bought the Fazenda Rio Negro and, with the help of Brazilian agencies, turned it into a reserve and research center for ecologists.

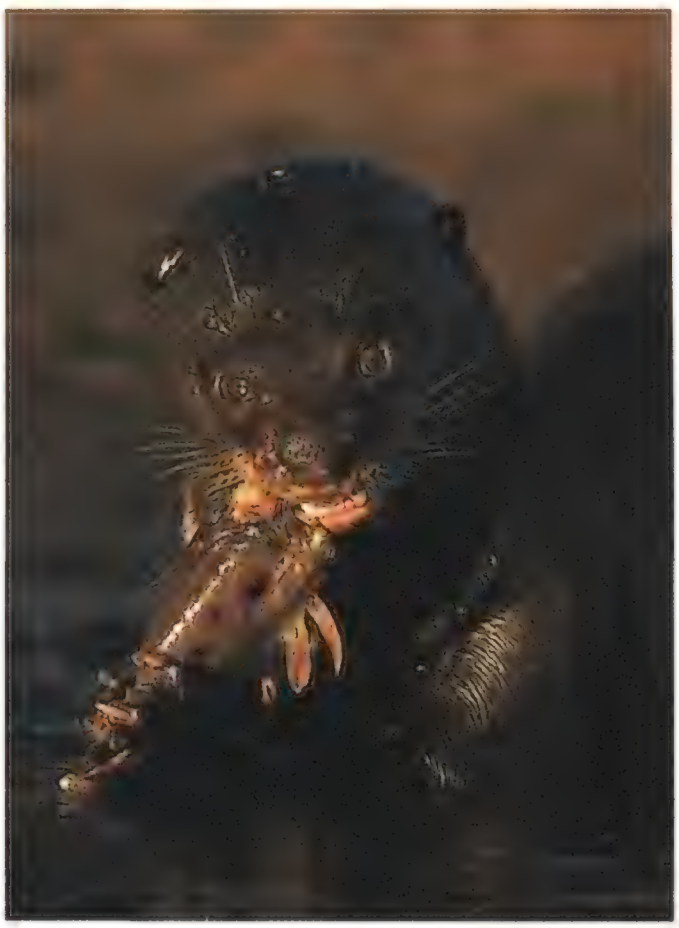
Here I meet 27-year-old Helen Waldemarin, an enthusiastic graduate student in ecology at Rio de Janeiro State University who is surveying the otter population for CI and is dressed in python-skin fatigues. She has invited me along on one of her excursions. "Ecotourism can be a double-edged sword," she tells me the day before we are to set out. "It can help conservation or disrupt it."

WITH A FOOTPRINT THAT IS OFTEN BIGGER THAN A HUMAN hand, the giant river otter is the largest of the world's 13 otter species, reaching six feet in length and weighing up to 70 pounds. A giant otter reclining on a riverside log, its powerful hind legs giving its body the shape of a sidelong question mark, is as regal, and as prepossessing, as any cheetah or tiger. After the jaguar, the giant otter is South America's largest and most capable predator. But unlike the jaguar—and all other otters as well—it lives and hunts in groups of up to nine individuals. In 1978, a group of giant otters attacked a Brasília policeman at the city's zoo. The off-duty sergeant tried to rescue a child who had fallen into an enclosure containing an otter family and pups. (He died of infections caused by their bites. The child survived.) The widely publicized incident led to a popular belief in Brazil that giant otters can attack and capsize a canoe and tear its occupants to pieces, though no such thing has ever happened.

Last year, the highly mobile otters built a den right across the river from the fazenda's buildings, but the animals have since moved. Waldemarin is not sure whether activity at the ranch caused them to leave. In any case, they often come back, patrolling their territory. "We begin looking for their dens bright and early in the morning," she briefs me. To maximize observation time and reduce disturbance, we will travel to our locations before dawn and return well after sundown. I learn that the job of an otter researcher involves coping with a great deal of sleep deprivation.

By first light, Waldemarin and I, with Senhor Japão at the helm of our small boat, are already puttering over the Rio Negro's olive green water, a highway that meanders through a mosaic of ponds and lakes, each teeming with fish of many species. Waldemarin explains that the otters maintain a network of dens, camps and resting places that they visit and clean regularly. Senhor Japão is expert at spotting the otters' entrances, even though they are often disguised by overhanging vegetation. The entrance tunnel, often 15 feet long, leads to a grand chamber with a floor area the size of a suburban living room, large enough to accommodate an otter family. He nudges the boat into a steep, crumbling clay bank, striated with vertical claw marks where the otters had clearly climbed out of the water. Senhor Japão points to a dark opening the size of a squashed car tire just below the lip of the bank. The mud around the entrance is still wet; the otters must have just left.

Behind us comes a snort, and we all spin around in the canoe to see a streamlined head, whiskered like a bottlebrush, cutting an arrowhead wake. Snorting in what sounds like agitation, the otter stops to investigate us, craning its head, standing up in the water for a better view. Waldemarin looks for the cream-colored markings on its neck that are as individual as a human's fingerprints, but before she can make an identification, the giant otter ducks, dives and disappears.



While they eat mostly fish—some as large as 15 pounds—otters sometimes dine on young caimans.

Waldemarin tells me that the usually inquisitive otters are acting uncharacteristically wary; soon we find out why. At the entrance to another den, Senhor Japão points out a log that, at closer examination, turns out to be a large caiman, a species of crocodile. "The otters must already have cubs," Waldemarin says. The caiman has been lured by the promise of food.

Big caimans are not the otters' only predator. Their velvety chocolate-brown fur is among the finest in the world, and the high price it once fetched on international markets led to decades of relentless and uncontrolled hunting by man.

"The otters would thrash the anaconda against a fallen tree trunk and engage in what looked like a tug-of-war with an animated fire hose," writes one biologist.

In the past ten years, ecotourists (above) have begun to flock to the wildlife-rich Pantanal, staying at large cattle ranches, such as Rio Negro (below), the setting for a popular Brazilian soap opera.

Throughout their original range, from the Orinoco basin in Colombia and Venezuela to the Pantanal and northern Argentina, the curious otters, often approaching canoes in entire families, were an easy target for hunters who sought their pelts.

Official statistics only hint at the true extent of the slaughter: during a seven-year period in the 1960s, Brazil exported more than 40,000 pelts. But these figures don't account for a thriving illegal trade or the fact that more specimens were killed than recovered. Alarmed by the rapid disappearance of the giant otters, several South American countries granted them legal protection in the mid-1970s. By then, the Convention on International Trade in Endangered Species (CITES) had outlawed trade in otter skins, but clandestine commercial hunting continued, particularly in remote areas of the Amazon and Venezuela, with most pelts smuggled out via Colombia. As the numbers of giant otters in the wild plummeted, the price for their skins increased, and by the late '70s, they were fetching $250 each. In 1979, Venezuela was the last country to ban the hunting of otters. Since then, the animals have returned in significant numbers—to about 5,000—though they remain on the endangered list of the World Conservation Union (WCU).

Giant otters live in locally dense populations scattered through pockets of remote habitat. Outside the Pantanal, their other stronghold is Manu Biosphere Reserve, a river basin the size of Massachusetts, in southeastern Peru. Here the Frankfurt Zoological Society has coordinated a number of systematic field studies over the past dozen years.

Martha Brecht Munn, a WCU biologist, observed a family of otters in Peru hunting an anaconda, among the world's largest snakes. "Two or more otters would bite and hold the snake at different places on its body," she wrote in *Animal Kingdom* magazine. "They would then thrash it against a fallen tree trunk and engage in what looked like a tug-of-war with an animated fire hose." In a group, they could also make short work of a five-foot-long caiman, devouring the reptile—skull, bones and all—in 45 minutes. Most of the time, however, giant otters prefer fish. Brecht Munn wrote that they seem to hunt together as much for camaraderie as to subdue large prey.

She also described some cubs' first swimming lessons: "When [they] were about two weeks old, their [parents] carried them outside one by one . . . and dropped them into the water at the den entrance. The cubs were about the size of a loaf of bread, their eyes still closed, and they bobbed about helplessly." All the adult otters circled the cubs to protect them from loitering caimans.

ANOTHER PREDAWN START IN THE PANTANAL, AND THIS TIME I'm searching for otters with Marion Kallerhoff, a South

**100 years ago**, Orville and Wilbur Wright™ invented flight in their bicycle shop in Dayton, Ohio.

Your world hasn't been the same since. Join us in Dayton in July of 2003 as we celebrate the invention of flight with a spectacular once-in-a-lifetime event. For advance tickets and merchandise call **1-888-FLY-2003**. For visitor information, call **1-866-FLY-STAY**. For more information and to subscribe to the Inventing Flight newsletter, visit **www.inventingflight.com**

# INVENTING FLIGHT

## DAYTON 2003

THE CENTENNIAL CELEBRATION

CENTENNIAL OF FLIGHT 1903-2003

LexisNexis™

LOCKHEED MARTIN

Ohio

BANK ONE

RE/MAX

THE WRIGHT BROTHERS and other marks TM and © by The Wright Family Fund. Represented by The Roger Richman Agency, Inc., www.wrightbrothers2003.com

The giant otter, the Pantanal's second largest predator after the jaguar, belongs to the mustelids, a family including badgers and minks.

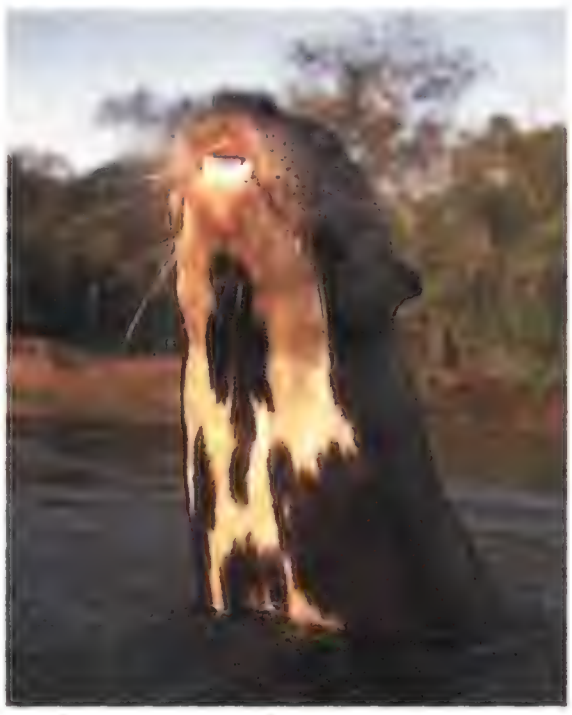
African wildlife specialist here to work with scientists studying jaguars, hyacinth macaws and giant otters. As we push off into the dark water, I scan the banks with my flashlight; the eyes of caimans light up like reflective highway markers. After an hour of paddling our canoes, we stop, a half mile across the river from the most likely otter dens, to await the daylight. The foghorn-like humming of curassow birds begins to echo from the forest, and jabiru storks cross against the gray sky like small aircraft. But first up are the mosquitoes. Because otters have an excellent sense of smell, Kallerhoff suggested we not use any insect repellent. Now I cringe against the onslaught. Then, all of sudden, I forget the insects' annoying whine.

Across the river, a whiskery face pops up with a nostril-clearing snort, then another face appears, followed by yet another. A family of giant otters has just emerged from its den and begins to feed with the splashy exuberance of kids in a backyard swimming pool. I ease my canoe back into the river, quietly paddle upstream, then drift down, still as a log.

The otters dive eagerly into the shallow water, churning twisting trajectories that trace their frantic underwater chases. I'd read that biologists in eastern Colombia have observed giant river otters swimming with Amazon River dolphins. Indeed, the otters' water antics appear dolphinlike, until, that is, they surface, roll over on their backs, grab fish with their webbed paws and wolf them down.

Crunch! One otter snaps the backbone of a piranha with its powerful molars while another torpedoes past my canoe to emerge with a stubby two-foot-long pintado catfish flapping in its mouth. Then, as if on cue, all this hyperactive commotion stops, and the otters launch into some impromptu landscaping around the den. They huff and sniffle, rearranging the *lianas*, or vines, and tear at a floating raft of water hyacinth. Then the merry troupe is off again, snorting and splashing, playing what seems like an energetic game of tag as they head down the river and around the bend.

Kallerhoff catches up to scold me about getting too close. "In Manu Biosphere Reserve in Peru, the giant otters stopped breeding because boatloads of tourists were forever invading their space," she says. These otters didn't appear stressed, I protest, and they continued to feed. This appears to mollify Kallerhoff. But I can see that keeping tourists safe distances from these appealing creatures will be a monumental challenge.



Distinctive throat markings enable biologists to tell one otter from another.

Other threats to the giant otters' well-being are more insidious. The Pantanal is like an immense sponge that soaks up water from surrounding uplands and thus acts as a giant settling pond for waterborne pollution. Biologists fear that levels of mercury, for instance, may be rising.

Much of Brazil and its neighbors are still in the grips of the search for El

July 18, 2006

**Zoomi Danlami,** 4, died of being born in the wrong place. Because of poverty, malnutrition and poor medical conditions, Zoomi didn't have a chance. She is survived by her mother, who was powerless to help her, and by all of us who could have helped prevent her demise.

Poverty kills. Like a plague, it infects billions of people. And the cure is in your hands. When you give to CARE, you're giving people lasting ways to meet their basic needs. From agriculture to education, we target the source of the problem, not just the symptoms. It's a solution that works, permanently.

**"Yes, I want to rewrite the future and help save lives."** ❑$15 ❑$20 ❑$50 ❑$100 ❑Other $____

Name_____

Address_____

City_____ State_____ Zip _____

E-Mail/Phone_____

Clip and mail this coupon with your check to:
CARE; 151 Ellis St. NE; Atlanta, GA 30303
To donate online, visit **www.care.org** or call toll-free **1-800-521-CARE ext. 1002.**

care℠

**where the end of poverty begins**

16031002

No other otter species hunts in a pack (called a romp) or lives in family groups, which usually comprise between six and eight individuals.

Dorado—gold. It is largely a quest of small-scale miners, but their collecting efforts add up. "Just within the Amazon basin, some 1.2 million people extract roughly 200 tons of gold a year," says Frank Hajek, who comanages the Frankfurt Zoological Society's giant otter project in Peru, "and the production of each gram of gold requires one to four grams of mercury." Up to 40 percent of this mercury escapes into the environment. An estimated 128 tons a year leaches into the Amazon alone.

"Our research in Manu, Peru, and the nearby gold mining areas shows that mercury levels in fish are too high for human consumption," Hajek says. "At the same time, analysis of the [Peruvian] giant otters' scat [feces] shows no traces of methylmercury and, since the otters eat primarily fish, this means that mercury must be accumulating in their bodies in toxic concentrations." Hajek hasn't yet been able to sample otter tissue to prove his theory. But he fears that many otters will die from mercury poisoning unless something is done. The solution, he says, is relatively simple. Miners could heat their ore in a closed vessel, capturing most of the mercury. But miners dislike this process—it produces a discolored lump of gold that fetches lower prices. Hajek says that giant river otters are also feeling the squeeze from ever diminishing rain forests. Although the home range of a typical otter family is only about 270 acres, they need thousands of acres to thrive. Young otters leaving their family often travel long distances on the water in search of the right den habitat, which usually includes a shallow lake, an abundance of fish and high banks in which to tunnel.

One biologist has estimated the Pantanal's giant otter population at a relatively healthy 500, but there have been no measurements of mercury levels in the otters here. On my way out of Rio Negro, I take in one last view of their home from the window of the Cessna. In the course of a half hour, I spot flocks of spoonbills, egrets and storks, hundreds of caimans and capybaras, a lone swamp deer and tapirs. But the future of this abundance is far from certain. Despite a World Wildlife Fund initiative that saw UNESCO declare more than 96,000 square miles of the area a Biosphere Reserve in November 2000, only about 3 percent of the Pantanal is actually protected. The rest is in the hands of ranchers torn between development and conservation.

Recently, Conservation International of Brazil proposed creating a network of biodiversity corridors—continuous and unfenced strips of wild habitat that allow animals to range freely—throughout the Pantanal and the surrounding cerrado uplands. These corridors, carved mostly through private properties, would either be left uncultivated or farmed in an environmentally and otter-friendly manner. It sounds like a good idea: the ranchers would gain tax breaks and tourism opportunities, and the animals would get the room they need.

"The giant otters are perhaps our most captivating animals," biologist Reinaldo Lourival, who leads the CI Pantanal branch, told me. "They can be easily glimpsed by visitors and so have become an umbrella species for conservation in the Pantanal. If we can ensure an adequate habitat for giant otters, much of our amazing biodiversity will be taken care of as well."

*Derek Grzelewski wrote about the kakapo parrot in the October issue. Theo Allofs photographed Australia's flying foxes in May 2000.*

# Smithsonian

ORDER TODAY!

## Christmas Wish Musical Snowglobe

A young girl and Victorian-era Santa are enchanted with glitter and white snow. Plays "We Wish You a Merry Christmas." Sculpted of resin, hand painted and decorated in wondrous detail. 6 1/2"h. x 4 1/2" dia. *97201* $29 *(Members* $26.10*)*

## Cherry Blossom Tie

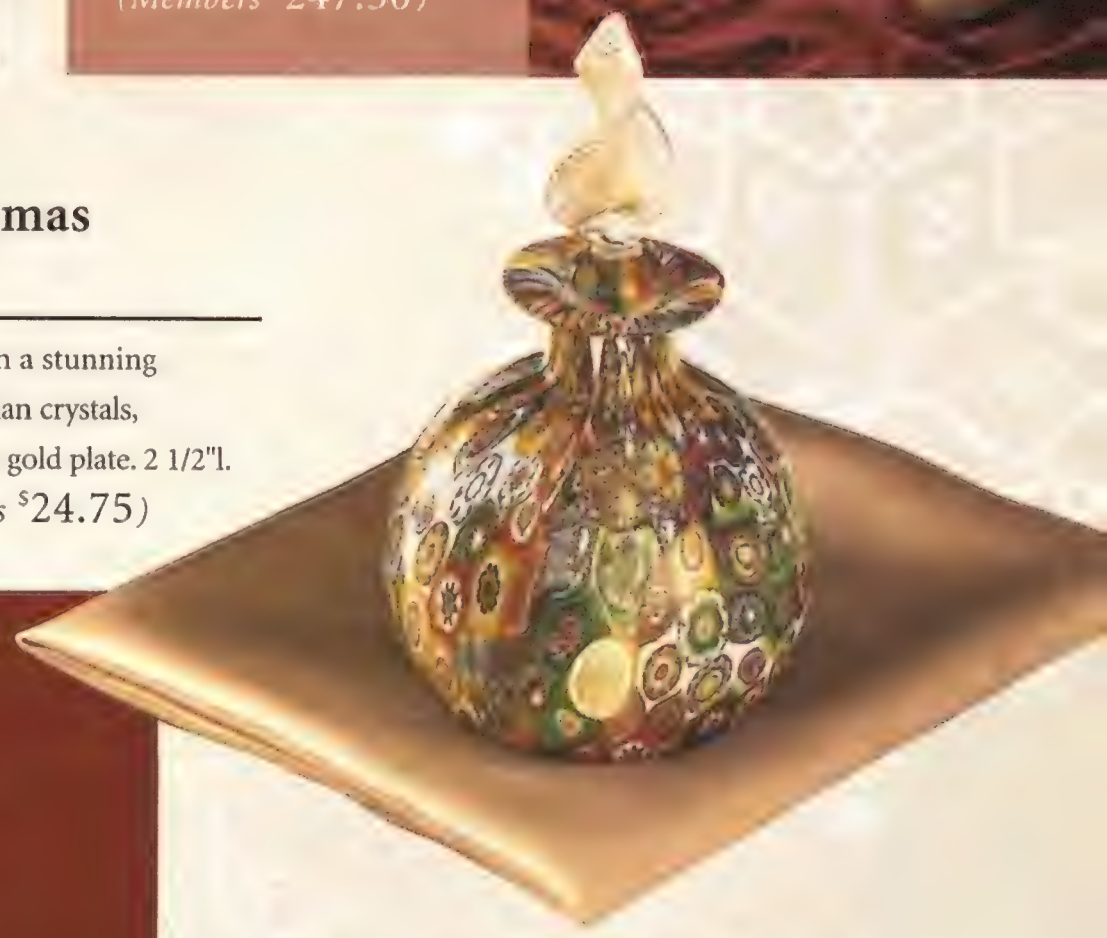
Our silk tie recalls 18th century Japanese wood-block printed textiles. Hand finished. 59 1/4"l. x 3 3/4"w.
*20080* $25 *(Members* $22.50*)*

## Smithsonian Teddy Bear

This limited edition, mohair adaptation commemorates the 100th anniversary of the Teddy Bear. Made in Germany, each bear is numbered and comes with a certification of authenticity. 26" tall.
*67214* $275 *(Members* $247.50*)*

## Bejeweled Christmas Tree Pin

The perfect tree glows with a stunning array of Swarovski® Austrian crystals, individually hand set in 14k gold plate. 2 1/2"l.
*40049* $27.50 *(Members* $24.75*)*



## Millefiori Perfume Bottle

Hand blown and molded of fused glass, our elegant bottle presents a profusion of brilliant floral motifs. 24k gold leaf accents.
*71004* $38 *(Members* $34.20*)*

Smithsonian members get

# 10% OFF

To place an order or request a Smithsonian Catalogue call 1-800-322-0344, and please reference code T99319.

**Your purchase supports the Smithsonian Institution.**

**www.SmithsonianStore.com**

Fruit sleuths and nursery

# APPLES *of* YOUR EYE

BY TIM HENSLEY

PHOTOGRAPHS BY RICHARD ROBINSON

**owners are fighting to save our nation's apple heritage . . . before it's too late**

SIXTEEN YEARS AGO, WHEN I WORKED AT THE Planters & Designers garden center in Bristol, Virginia, old-timers frequently came in and asked for apple varieties called Virginia Beauty and Yellow Transparent. I tried to look them up in fruit tree catalogs, but I could never find them. The more they asked me, the more intrigued I became. Though I came from a long line of nurserymen, I knew little about fruit varieties of the past, a subject called historical pomology.

North Carolina heirloom apple detective Lee Calhoun (left) has discovered almost 100 varieties thought to be extinct, including the Magnum Bonum (nearest the pruners).

Of course, that was before Henry Morton drove into the gravel parking lot at the garden center in the spring of 1988. He was wearing blue jeans and a button-down shirt; I figured he was a customer who had come to buy a rose bush and a bag of manure and be on his way. But Morton, a Baptist preacher from Gatlinburg, Tennessee, slapped me on the back, cornered me in the blue rug junipers and proceeded to try to sell me a Limbertwig. A Limbertwig?

"Limbertwigs vary in size, shape, color, quality and tree habit," said Morton, "but they all have one distinguishing characteristic, and that is their distinct Limbertwig flavor." I must have looked puzzled, so he told me that a Limbertwig was an old-fashioned apple.

It turns out that Mr. Morton spread not only the Gospel but some of the best-tasting apple varieties ever grown, many of them old lines or antique cultivars, rescued from the edge of extinction—varieties such as Moyer's Spice, Walker's Pippin, Sweet Bough, and Black Limbertwig. His 11- by 17-inch price list named some 150 varieties—including the Virginia Beauty ($5 for a five-foot tree) and the Yellow Transparent ($5). Our meeting was the beginning of a friendship that would add some poetry to my rootball-toting life. For I would taste these mouthwatering apples at Morton's hillside nursery, and learn that the dark red, nearly black, Virginia Beauty is one of the best late keepers (apple parlance for a variety that ripens late and keeps well into the winter) you could ever sink your teeth into: sweet and juicy, with hints of cherry and almond. Yellow Transparent, also called June Apple, is almost white when fully ripe. Its light flesh cooks up in about five minutes and makes exquisite buttermilk biscuits. Once I'd sampled these old varieties, a Red Delicious or a Granny Smith never bore a second look.

Largely because of Morton, in 1992 my wife and I opened a small mail-order nursery that specializes in antique apple trees in general and old Southern apples in particular. We

**Calhoun (below) tends some 450 apple varieties, more than four times the number commercially cultivated in this country.**

To preserve an antique apple variety, a cutting from the parent tree is grafted to the rootstock of another apple tree by slicing each with a knife (right). The two pieces are then joined (below), taped together and planted.

started buying stock wholesale from Morton and then reselling the trees. Not surprisingly, Virginia Beauty became one of our biggest hits.

Along the way I discovered the sheer magnitude of America's long love affair with the apple. Today, only 15 popular varieties account for more than 90 percent of U.S. production. That wasn't always so. By 1930, Southerners alone had developed nearly 1,400 unique apple varieties, while more than 10,000 flourished nationwide. They came warts and all, some with rough, knobby skin, others as misshapen as a potato, and they ranged from the size of cherries to nearly as big as a grapefruit, with colors running the entire spectrum—flushed, striped, splashed and dotted in a wonderful array of impressionistic patterns.

Sadly, more than a thousand of these old Southern varieties are thought to be extinct. But Morton, who died a decade ago, and a handful of other hobbyists and independent nurserymen clung to the idea that many of these so-called extinct apple varieties might be living on, hidden from view in some obscure or overgrown orchard. Most of the apple trees planted in the past century, called old-time or full-size, can live 75 years or longer, even under conditions of complete neglect. The apple sleuths questioned elderly gardeners, placed ads in periodicals and, in time, discovered that more than 300 Southern apple varieties were still flourishing. Today, with most pre-World War II orchards either gone or seriously in decline, time is running out to find other lost varieties.

ALL APPLE ILLUSTRATIONS: TIM HENSLEY COLLECTION

WHEN MY GRANDFATHER, HIMSELF A retired nurseryman, learned of my interest in historical pomology, he handed me a manila envelope full of old fruit lithographs that had belonged to his father. "Dad sold fruit trees back in the '20s and '30s, he said. "These are from the plate book he used to carry."

When I spread the images out on my grandmother's pedestal kitchen table, it was as though my family tree were bringing forth fruit in its season. I marveled at the richly colored images of Maiden's Blush (waxen yellow with its cheek reddened toward the sun); Black Ben Davis (deep red, slightly conical, prized for its high-quality preserves); Johnson's Fine Winter (orangy red, queerly lopsided—yet deemed the "imperial of keepers"). I would learn as well that my grandfather's grandfather, C. C. Davis, started out in the nursery business back in 1876—and that virtually all of the more than 100 fruit varieties he propagated are now considered rare or extinct.

In the 19th century, fruit gardens were as common as vegetable or rose gardens are today. "Fine fruit is the flower of commodities," wrote Andrew Jackson Downing, author of the 1845 *Fruits and Fruit Trees of America*. "It is the most perfect union of the useful and the beautiful that the earth knows. Trees full of soft foliage; blossoms fresh with spring beauty; and, finally,—fruit, rich, bloom-dusted, melting, and luscious—such are the treasures of the orchard and garden, temptingly offered to every landholder in this bright and sunny, though temperate climate."

This boast could not have been made 200 years before. When the first colonists arrived at Jamestown, Virginia, in 1607, there were no cultivated fruit trees in America—save for a few scattered Indian plantings—only wild crab apples, cherries, plums and persimmons. Taking a bite into a persimmon, Capt. John Smith commented, could "draw a man's mouth awry."

How much Smith influenced the subsequent introduction of new fruits to America is unknown. What is clear is

that many colonists brought seeds, cuttings and small plants on the voyage over from Europe. Among the first to take root here was the May Duke cherry, the Calville Blanc d'Hiver apple, the Moor Park apricot and the Green Gage plum. Over the course of the next 300 years, the New World would experience a virtual revolution in the number and quality of apple and other fruit varieties.

"The greatest service which can be rendered any country is to add an useful plant to its culture," Thomas Jefferson wrote in 1821. But it was less this noble sentiment than necessity, and thirst, that propelled America's early experiments with fruit. "The apple was not brought to this country to eat, but to drink," says apple authority Tom Burford, whose family has been growing them since 1750. Jefferson's six-acre North Orchard was typical of family farms of the late 18th and early 19th centuries. These so-called field or farm orchards averaged about 200 apple and peach trees each, bearing fruit for cider and brandy making, or for use as food for livestock. Farmers made applejack by placing fermented cider outside during the winter and removing the ice that formed, leaving a potent alcoholic liquid.

Unlike Europeans, most Americans did not have the luxury of propagating apple trees by cloning existing plants through budding or grafting. Grafting, which can be expensive and is labor intensive, is the only practical way to duplicate the exact characteristics of the parent tree. (It is done by joining a cutting, called a scion, to a rooted plant, called a rootstock. The scion grows and eventually bears fruit.) The trees that colonists did bring over from Europe didn't do well in the harsher climate. As a result, most colonists planted apple seeds, which create haphazard results. "Apples have . . . a dizzying mélange of inherited characteristics," writes Frank Browning, a journalist for National Public Radio who penned the book *Apples* in 1998. "Any one 'mother' tree can produce a broad array of similar-looking apples whose seeds will produce 'daughter' apple trees that have completely different shapes . . . and create fruit with utterly different color, sweetness, hardiness, and shape." This rich genetic heritage makes the apple the hardiest and most diverse fruit on earth. But propagating apples is unpredictable.

A tree grown from an apple core thrown over the back fence usually bears fruit of only passable or inferior quality. But every once in a while, an apple with unusual and desirable characteristics arises. That is what happened time and again in cider orchards of the 17th and 18th centuries, orchards which served, in effect, as vast trial plots for the improvement of imported Old World stocks. Thus emerged, for instance, the small Hewes' Crab, possibly a cross between an apple of European stock and the crab apple, native to Virginia. In pressing the juice-filled Hewes' Crab for cider, wrote Philadelphia farmer Henry Wynkoop in 1814, "the liquor flows from the pumice as water from a sponge."

Many of these pippins, as the tree seedlings were called, thrived. By the mid-1780s, Jefferson could boast in a letter from Paris to the Rev. James Madison: "They have no apples to compare with our Newtown pippin." In fact, Virginia's Albemarle County, which includes Monticello, enjoyed a lucrative trade in exporting the Newtown Pippin to England.

One of the first American texts on pomology was written by William Coxe and published in 1817. *A View of the Cultivation of Fruit Trees* described "one hundred kinds of the most estimable apples cultivated in our country"—many of them true natives. And in 1869, Downing's revised edition of *Fruits and Fruit Trees* (edited by brother Charles, and even today considered the magnum opus of American pomology) described nearly 2,000 different apples, pears, peaches, plums and a host of lesser-known fruits—most of American origin.

That was the world in which John Chapman, better known as Johnny Appleseed, spread goodwill and good

**The author's great-great-grandfather C. C. Davis (front, center, in this c. 1910 photograph) ran Virginia's Silver Leaf Nurseries from 1876 to 1932.**

BOTTOM: ROBERT AND ADA FARNHAM COLLECTION

Author Tim Hensley's mail-order nursery business now offers 30 of the apples once sold by his great-great-grandfather.

seeds, trekking barefoot in a sackcloth shirt over Pennsylvania, Ohio and Indiana during the first half of the 19th century. The eccentric but resourceful Massachusetts native scouted routes along which pioneers would most likely settle. He bought land along these routes, on which he planted seedlings, which he would willingly dig up to sell to arriving settlers. By the 1830s, Chapman owned a string of nurseries that spread from western Pennsylvania, across Ohio and into Indiana. He died owning 1,200 acres of land in 1845. Chapman's story is about "how pioneers like him helped domesticate the frontier by seeding it with Old World plants," writes Michael Pollan in *The Botany of Desire*. "Without them the American wilderness might never have become a home." Chapman's frontier nurseries no doubt produced many valuable new apples. Perhaps a few of them even made it into W. H. Ragan's USDA, Bulletin No. 56, *Nomenclature of the Apple*, the essential reference for apple aficionados, which in 1905 cataloged more than 14,000 different apple varieties.

But the golden age of American pomology would come to an abrupt end in the early 20th century. Inexpensive railway shipping and refrigeration enabled orchards to transport apples year-round. Home orcharding declined as suburbs emerged. And when that quintessential mass-market apple, the patented, inoffensively sweet and long-lasting Red Delicious, took hold in the early 1920s, many high-flavored heirlooms were effectively cut out of the commercial trade. Today's mass merchandisers tend to view apple varieties in terms of color, disease resistance, shelf life and their ability to be shipped long distances without bruising. Grocery stores often stock only one red, one green and one yellow variety, which usually means a Red Delicious, a Granny Smith and a Golden Delicious. And as any consumer knows, those big, beautiful and perfect-looking apples can often taste like sweetened sawdust. Still, the apple remains big business in this country: about 7,500 commercial apple producers in 36 states harvest a total volume of 48,000 tons, second in production only to China. The average American consumes some 16 pounds of fresh apples a year, making the apple second only to the banana as the nation's most popular fruit.

CREIGHTON LEE CALHOUN, JR., OF PITTSBORO, NORTH CAROLINA, may be the most influential heirloom apple sleuth on the job today. A retired Army colonel with degrees in agronomy and bacteriology, Calhoun started collecting old apple varieties in the early 1980s. "Early on, it was sort of like a treasure hunt," he says. "I'd go knock on doors and ask: 'What kind of tree is that?' Most of the time the people would say, 'I have no idea,' or 'Granny knew, but she died in '74.'" It took Calhoun two years to locate his first antique apple—a Southern variety called Magnum Bonum. In 1983, he found an old North Carolina apple called Summer Orange, prized for making pies. Calhoun tracked another apple to a farm owned by E. Lloyd Curl in Alamance County, in North Carolina's piedmont region. "Curl said to me, 'Yeah, back during the Depression, I would sell apple trees for a local nursery. They paid me 10 cents for every tree I sold, and this was one of the varieties the nursery had; they called it the Bivins.'"

Calhoun took a cutting from the tree and grafted it onto one in his backyard orchard. (One of his backyard trees would eventually host 36 different varieties, each new scion grafted to a different limb.) In 1986, Calhoun came across a 1906 catalog from an old North Carolina nursery, which indicated that the Bivins was actually a New Jersey apple called Bevan's Favorite. It originated before 1842 and sold in the South as a high-quality summer-eating apple. But like

# Advertiser Directory

**For information, circle the corresponding number(s) on the attached card, and mail or fax response to (585)321-0043. Visit *Smithsonian* Reader Service ON-LINE at www.smithreader.com.**

## Travel

### Lewis & Clark

**1. Columbia & Snake River Sternwheeler Cruises.** 7- and 11- night cruises from Portland, Oregon. Spacious staterooms, showboat entertainment, & fine dining. FREE color brochure. www.CruiseIntoHistory.com

**2. Cruise West.** Cruise West offers up-close, casual small-ship cruising from Alaska to Costa Rica & Panama. www.cruisewest.com

**3. Missouri Tourism.** FREE Missouri Travel Kit. New for 2002! Vacation in Missouri–Where the Rivers Run. www.VisitMO.com

**4. Washington State History Museum.** For more information about the end of Lewis & Clark's Voyage, visit the Washington State Historical Society's web site at www.wshs.org

**5. Adventure Collection.** Win a $10,000 Adventure Travel Certificate. For details and entry, visit www.adventurecollection.com/smith

**6. Amelia Island Plantation.** Florida's Premier Island Resort, offers oceanfront rooms and villas, championship golf, tennis, luxury spa, shopping and more. Visit www.aipfl.com

**7. American Cruise Lines.** Enjoy scenic and culturally enriching overnight cruises through inland waterways of the Eastern seaboard. www.americancruiselines.com

**8. Arizona.** Free colorful 128-page *Journeys* magazine and state map.

**9. Asheville, NC.** Southern hospitality, mountain setting will charm you. Enjoy historic attractions, antiques, homemade crafts, outdoor adventures. www.ashevillechamber.org

**10. Barbados.** Bask on tropical beaches. Sail turquoise waters alongside flying fish. Uncrowded, unspoiled vacation beyond imagination. www.BARBADOS.org

**11. Biltmore Estate, Asheville, NC.** Request a free visit planner today and plan your escape to America's largest home.

**12. Black Sheep Touring Company.** Come experience New Zealand with us. Small groups, flexible itineraries, very personalized service. www.blacksheeptouring.co.nz

**13. Britain 2002.** Britain, land of heritage and culture, nature and breathtaking landscapes. There's so much to do and see. Have a great time with good friends. www.travelbritain.org

**14. British Virgin Islands.** Nature's Little Secrets: Sailing, diving, world-class resorts, charming inns, luxury villas–Pure Caribbean Beauty. www.bvitouristboard.com

**15. The Broadmoor.** We have a wonderful surprise waiting for you at our spectacular Five-star, Five Diamond resort.

**16. Canadian Tourism Commission.** Come out and play. For fantastic vacation ideas, visit www.travelcanada.ca/sm and order a FREE guide today.

**17. Clipper Cruise Line.** For a free 2003 Clipper Cruise Line Small-Ship catalog, visit www.clippercruise.com or contact your travel professional.

**18. Colonial Williamsburg.** This vacation, do something different. Travel back in time. Request your FREE vacation planner. www.colonialwilliamsburg.org

**19. Curacao.** Great resorts, diving, casinos, shopping, beaches, golf, gourmet dining in a romantic setting. www.curacao-tourism.com

**20. East West Resorts.** Ski the Rockies or golf in the Carolinas. Aspen, Beaver Creek, Big Sky and Park City. Plus, Hilton Head, Kiawah Island and more! EastWestResorts.com. Ad #581.

**21. Egypt.** Where history began and continues. Live the adventure you've dreamed about. Visit www.egypttourism.org for information.

**22. Finnish Tourist Board.** Explore the history and culture of Finland by traveling along the King's Road. www.finlandkingsroad.com

**23. Florida Keys & Key West.** From sunken treasures and world-class diving, to art galleries, museums and festivals. Visit www.fla-keys.com

**24. Geographic Expeditions.** Specializing in tours and treks throughout the world for groups and individuals since 1981. www.geoex.com

**25. Guatemala.** Visit Guatemala, Heartland of Mundo Maya. The best memories will be captured in your heart! www.guatemala.travel.com.gt

**26. Holland America's Europe.** More time in port and gracious five-star service.

**27. India.** Find out about a country that will enchant you with her beauty and culture. India. Eternally yours. www.tourismofindia.com

**28. KD River Cruises of Europe.** See Europe from a different perspective. KD River cruise on the Rhine, Elbe, Danube. Europe's other historic waterways. www.rivercruises.com

**29. Maryland Vacations.** Beaches, mountains, big cities, small towns. So many things to do. Welcome. www.mdisfun.org

**30. Mexico Tourism.** Discover the many moods of Mexico, with its majestic architecture, ancient temples, and flourishing culture. www.visitmexico.com

**31. New Brunswick, Canada.** From highest tides to top of the Maritimes, so many wonders are waiting for you! For FREE Travel Kit: www.TourismNewBrunswick.ca

**32. New York State.** Come show your love for New York State! iloveny.com

**33. North Carolina.** Enjoy natural beauty and outdoor adventure. Go to www.visitnc.com for a free travel guide.

**34. Norwegian Tourist Board.** Nature at its most spectacular. A land of cosmopolitan cities, charming towns, ancient Viking ships, breathtaking coastal voyages...

**35. Orient Lines.** Orient Lines' fleet of elegant mid-sized ships visit all seven continents. Enjoy luxury at sea and discovery on land.

**36. The Outer Banks of North Carolina.** Home of the First Flight. Come experience the History and Mystery.

**37. Panama.** Come visit the path less traveled. Panamainfo.com

**38. Peter Deilmann EuropAmerica Cruises.** Sail past quaint villages, cities, and vineyards on a luxury European river cruise. www.deilmann-cruises.com

**39. Radisson Seven Seas Cruises.** Great value on award-winning luxury cruises. Visit www.rssc.com

**40. Scotland.** Ancient castles, breathtaking scenery, enchanting cities. Music & festivals. Explore Scottish ancestry. For Vacation Planner, www.visitscotland.com

**41. Smithsonian Study Tours.** For information and free brochures on any of our 350 worldwide tours, visit www.SmithsonianStudyTours.org

**42. South Carolina.** Smiling Faces. Beautiful Places. Free Smiles & Places vacation kit. Visit www.DiscoverSouthCarolina.com

**43. Swan Hellenic.** Britain's award-winning discovery cruise line, featuring exotic itineraries and on-board guest speakers. www.swanhellenic.com

**44. Texas Tourism.** Send for a Free Texas travel guide with over 260 pages of helpful information or visit www.TravelTex.com

**45. Turkey.** A magnificent past and historic treasures from 13 civilizations awaits your discovery. www.tourismturkey.org

**46. United States Virgin Islands.** Sail along the three breathtaking islands of the United States Virgin Islands. For more information, visit www.vicl.org

**47. Uniworld.** Visit China & Yangtze River or experience Russia from the comfort of a cruise ship. www.uniworld.com

**48. Virginia Tourism.** Relive the events that helped shape our nation at Virginia's Civil War museums and battlefields.

**49. Visit Florida.** There's never been a better time to explore Florida. For Hot Florida Vacation Deals, visit www.flausa.com

**50. West Virginia Division of Tourism.** Escape to old-fashioned pleasures and fascinating history in Wild and Wonderful West Virginia. www.callwva.com

**A. ALL OF THE ABOVE CATEGORY**

## Apparel

**51. Accessories from France.** Unstructured handbags made with the finest European-loomed jacquard tapestries with unique and colorful designs. www.accessoriesfrance.com

**52. Casco Bay Wool Works.** Capes, Shawls & Fine Woolens. Every piece reflects the quality and style possible only when it is individually hand-crafted. www.cascobaywoolworks.com

**53. John Helmer Haberdasher.** www.johnhelmer.com. Established in 1921, featuring a large selection of hats, caps and berets.

**54. L.L. Bean.** 90 years of providing quality clothing and gear for people who enjoy the outdoors. www.llbean.com

**55. Lands' End.** www.landsend.com. The direct merchant that offers the best value and service for your clothing needs.

**B. ALL OF THE ABOVE CATEGORY**

## Automotive

**56. Chrysler.** To find out more about our award-winning lineup, please visit www.chrysler.com

**57. Toyota.** To learn more about Toyota innovations and technologies that positively impact the world, visit www.toyota.com/tomorrow

**C. ALL OF THE ABOVE CATEGORY**

## Business/ Corporate

**58. UPS–United Parcel Service of America, Inc.** Ground, overnight and international. What can Brown do for you?℠ Find out at ups.com

## Cuisine

**59. Bagels Forever.** Great gift idea! Ship any assortment of real bagels anywhere in the United States. www.BagelsForever.com

## Home

**60. Hunter Fan Company.** Hunter offers over 100 styles of high-performance ceiling fans for any decor. Visit www.hunterfan.com

**61. Suter's Handcrafted Furniture.** Suter's creates handcrafted furnishings in solid cherry, mahogany and walnut. Online catalog at www.suters.com

**62. Vixen Hill.** Factory direct modular cedar gazebos & screened garden houses pre-engineered for easy assembly by a noncarpenter.

**D. ALL OF THE ABOVE CATEGORY**

## Investment

**63. American Century.** Visit www.americancentury.com

**64. TIAA-CREF.** Investment and insurance solutions to help you build the future you want and deserve. www.tiaa-cref.org

**E. ALL OF THE ABOVE CATEGORY**

## Technology

**65. Canon USA, Inc.** Canon U.S.A., Inc.'s products include 35 mm & APS Cameras, Mini DV & Analog Camcorders, Digital Still Cameras & Image Stabilizer Binoculars.

**66. Microsoft.** Remove barriers. Remove limitations. That's business with .NET Connected Software. microsoft.com/enterprise

**F. ALL OF THE ABOVE CATEGORY**

## Miscellaneous

**67. AmeriMusic.** Finest recordings of patriotic music from the Revolutionary War to today–patrioticmusic.com and civilwar.com

**68. CARE.** Fights global poverty by working with communities to overcome their most threatening problems. www.care.org

**Buick.** See Washington, D.C. — Ultra style! To learn how, see page 48 or visit www.parkavenue.com for details. Buick. The Spirit of American Style.

**69. Discoveries/Cartouche Ltd.** Timeless jewelry: Personalized hieroglyphic pendants & rings, handcrafted in Egypt in silver or gold. www.egyptianimports.com/ad1

**70. Transitions.** The clearest, darkest, and fastest photochromic lenses available. Visit www.transitions.com for more information.

**G. ALL OF THE ABOVE CATEGORY**

## Holiday Gift Guide

**71. As Time Flies Signature Calendars.** Stunning original photography of glorious egrets in their natural setting. A percentage of sales benefit habitat preservation. FREE SHIPPING.

**72. Barefoot Books.** Celebrating art and story with beautiful picture books for all ages. Free catalog or to order, www.barefootbooks.com

**73. Beau Ties Ltd.** Hundreds of silk bow ties, as well as ascots, cummerbunds and scarves. Free catalog. www.beautiesltd.com

**74. Birkenstock Express.** The complete Birkenstock collection. We offer easy shopping, personal service, online bargains and repair services. Free catalog. BirkenstockExpress.com

**75. Bow Tie Club.** Full color catalog featuring the finest quality silk bow ties handcrafted in Maryland. www.bowtieclub.com

**76. Cross-Culture.** Travel with a difference; foreign travel programs designed for travelers rather than tourists. www.crossculturein.com

**77. Daedalus Books & Music.** Thousands of books and CDs discounted at up to 90% off list price. www.salebooks.com

**78. Edward R. Hamilton, Bookseller.** Free Bargain Book Catalog offers quality hardcover books from $3.95. Huge selection. http://www.erhbooks.com/fbb

**79. Geezer.com.** Shop Geezer.com! 12,000 handcrafted items for your home & you. www.geezer.com

**80. Maine Holiday Wreaths.** The Perfect Gift–Fresh, beautifully decorated balsam with red velveteen ribbon, cones & red apples.

**81. The Masters' Collection.** Hand brush-stroked, exquisitely framed replica oil painting masterpieces. 100s of images. Free catalog.

**82. Sadigh Gallery.** Own a piece of history. Authentic ancient artifacts and coins (Greek, Roman, Egyptian). Free catalog.

**83. TechnoRoManTic Jewelry Objects.** Designed by Thomas Mann and speak to people of all ages. www.thomasmann.com

**84. Thundering Herd Buffalo Products.** A full range of American buffalo products from ranched buffalo.

**85. Time by Design.** New way to tell time. Digital hours encircled by accumulating minutes. To order, www.timebydesign.com

**H. ALL OF THE ABOVE CATEGORY**
**I. ALL ADVERTISERS 1–85**

**Offer Expires January 31, 2003.**

so many others, it was neglected and eventually disappeared; if not for Calhoun, it might have been lost altogether. Eventually, he would rediscover almost 100 lost varieties: apples such as Chimney, Prissy Gum, Dr. Bush's Sweet, Carter's Blue (retrieved from the National Fruit Trust in Kent, England), Clarkes' Pearmain (grown by Thomas Jefferson) and the Notley P. No. 1.

"I came to the conclusion that the South was losing an irreplaceable part of its agricultural heritage," says Calhoun. So, beginning in 1988, with the help of his wife, Edith, he poured his research into a book, *Old Southern Apples*, a veritable bible of old apple information. Calhoun is encouraged by the new interest that his book and the work of other antique apple sleuths have generated over the past several years.

"In the past five years," he says, "people have been breaking out of the Red Delicious straitjacket and becoming more adventurous, seeking out and buying apples of different colors and flavors." In Washington State, for instance, Red Delicious production has fallen 25 percent over the past five years as commercial growers plant less well-known varieties, such as Braeburn, Jonagold, Gala, Cameo and Pink Lady.

Once thought to be extinct, the Reasor Green is alive and tasty.

WHILE READING CALHOUN'S long list of extinct varieties, I came across a reference to an apple called the Reasor Green, which I knew from one of my family lithographs: a large green apple mottled with surface discolorations known as flyspeck and sooty blotch. (Nineteenth-century illustrators unabashedly recorded both beauty and blemish.) But what really caught my eye was the source for Calhoun's description: the 1887 Silver Leaf Nurseries catalog by my great-great-grandfather C. C. Davis. I had never seen a copy of the catalog, so I eventually got myself over to the National Agricultural Library in Beltsville, Maryland, to check it out. Wearing the required white gloves, I opened it gingerly and began reading my great-great-grandfather's "Prefatory" remarks. "We have greatly extended our operations, the past few years," he wrote, "having confidence that the planting spirit already manifest will continue to increase till every table be fully supplied with wholesome refreshing fruits."

Alas, his optimism would prove misplaced. Of the 125 apple, pear, cherry, peach and plum varieties he describes, only a handful—the Winesap and Rome Beauty apples, and the Bartlett and Kieffer pears—are still grown widely today. Yet of the 60 apple varieties he lists, I now grow half of them in my nursery.

It is for me a very direct connection to the past. But some antique apple varieties live on in a more indirect form. Another old apple by the name of Ralls Genet, for example, was a favorite of Jefferson's. As the story goes, the third president obtained cuttings of it from his friend, Edmund Charles Genet, French minister to the United States, and gave some to local nurseryman Caleb Ralls. The subsequent Ralls Genet variety soon became a popular apple in the Ohio Valley because of its late bloom—which allows it to weather late-season frosts. It was crossed by Japanese breeders with the Red Delicious, and the resulting apple, released in 1962, went on to become the now commercially popular Fuji, which recently overtook the Granny Smith as the third most popular apple in the United States (behind the Red Delicious and the Golden Delicious). As Peter Hatch, director of gardens and grounds at Jefferson's Monticello, noted at a recent apple tasting, "We like to say that Thomas Jefferson was not only the author of the Declaration of Independence and the father of the University of Virginia but perhaps the grandfather of the Fuji."

My own great-great-grandfather would no doubt be proud to know that I am growing the "Rawle's Janet" today—a variety that he, like many others of his time, misspelled. I suspect, however, that he would be even more pleased to know that I was able to propagate the Reasor Green in the spring of 2001. For it was my great-great-grandfather, in 1886, who introduced that very apple to the trade after he found it in a neighbor's orchard. He grafted it onto existing trees and began selling cuttings, called whips.

Had I not read Lee Calhoun's book, I probably wouldn't have given the Reasor Green much thought. But when I saw the word "extinct" next to what amounted to a family heirloom, I was motivated to get out of the nursery and see what I could turn up. For me, that meant talking with family and any friends who might know where an old Reasor Green tree was still standing. And it didn't take long to get a hot lead. When I told my story to Harold Jerrell, an extension agent in Lee County, Virginia, where the Silver Leaf Nurseries had been located, he said, "Yeah, I know that one's not extinct." He recommended that I contact Hop Slemp of Dryden, Virginia. So I called Slemp, a beef and tobacco farmer, who said that he did have a Reasor

Green and invited me to stop by for a visit the third week of October when the apples would be ready to pick. Would the Reasor Green—the regional pronunciation is Razor Green—turn out to be a "spitter," an apple so bitter that it provokes a universal response? Spitters, according to Tom Burford, make up a disappointing 90 percent of all heirloom apples.

On the appointed October day, my four sons and I headed off in the family car, driving deep into the valley-ridge province of southwest Virginia. By the time we pulled into Slemp's gravel driveway, the sun was already low in the hazy, autumn sky. Buckets of apples were spread haphazardly in his carport.

After a few minutes, the 65-year-old Slemp pulled up in his Ford pickup. We piled into it, headed east for a quarter mile and turned onto a paved road that winds past scattered groves of tulip poplars and Virginia cedars. Finally, we pulled into a farm lane that had several apple trees planted beside it. Stopping at a heavy metal gate, we climbed out and inspected what Slemp calls an "old-timey Winesap," loaded with dull red apples. I picked one off the tree and took a bite, luxuriating in the snappy, vinous flavor. Then we gathered a couple dozen more to eat later.

We got back in the truck and followed the lane a little farther up the ridge. "This here's the Reasor Green," Slemp said, pointing to a well-branched specimen with leaves as leathery as his hands. "It's been so dry, most of the apples have already dropped. Usually, this time of year, it's loaded." Sure enough, on the ground lay bushels of large green apples, mottled as promised with flyspeck and sooty blotch—clearly the very apple my great-great-grandfather propagated a century and a quarter ago.

What does a Reasor Green taste like? Well, I'd love to slap you on the back and let you try one of these juicy apples for yourself. But short of your visiting southwest Virginia, that's probably not going to happen. I can tell you, though, that after visiting with Slemp, we brought a whole bucketful of Reasor Greens home. And for my 39th birthday, my wife made two Reasor Green apple pies. It's not enough to tell you they tasted like manna from heaven. I give the final word, instead, to my great-great-grandfather. The Reasor Green, he wrote 115 years ago, is one of those fruits "so beneficently offered by the Creator to every husbandman."

*Tim Hensley runs the Urban Homestead nursery in Bristol, Virginia. Richard Robinson photographed the Shakers for the April 2001 issue.*

## WHERE YOU CAN FIND HEIRLOOM APPLES AND APPLE TREES

**Applesource**
1716 Apples Road
Chapin, IL 62628
800-588-3854
www.applesource.com
*A mail-order service selling 75 varieties of apples to eat.*
Season for shipping:
Late October through March
Free brochure

**Calhoun's Nursery**
295 Blacktwig Road
Pittsboro, NC 27312
919-542-4480
*Lee Calhoun owns the largest collection of old Southern varieties in existence and sells 450 Southern apple tree varieties.*
Catalog $1

**Greenmantle Nursery**
3010 Ettersburg Road
Garberville, CA 95542
707-986-7504
*Greenmantle's assortment of fruit trees includes California antique apples, pears, peaches and plums.*
Catalog $4

**Sonoma Antique Apple Nursery**
4395 Westside Road
Healdsburg, CA 95448
805-467-2509
www.applenursery.com
*Sonoma sells organically grown antique apple tree varieties.*
Free catalog

**Southmeadow Fruit Gardens**
P.O. Box 211
10603 Cleveland Avenue
Baroda, MI 49101
616-422-2411
www.southmeadowfruitgardens.com
*Southmeadow offers more than 250 apple tree varieties.*
Catalog $10

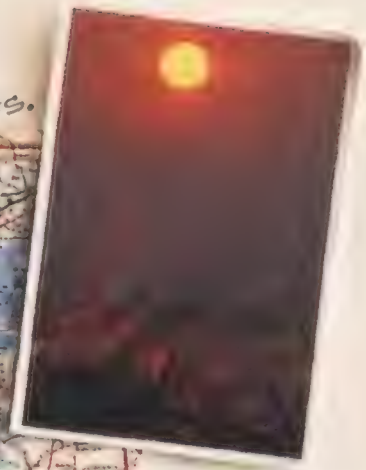
**Urban Homestead**
818 Cumberland Street
Bristol, VA 24201
276-466-2931
E-mail: urbanhomestead@aol.com
*A mail-order nursery that sells antique and modern apple trees, including 100 different Virginia varieties.*
Catalog $3

# Out Of The Ordinary.

## Not Out Of The Way.

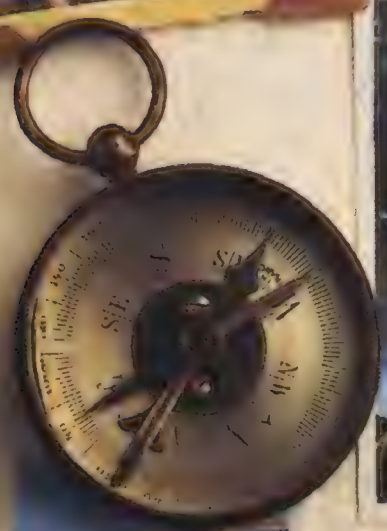
We saw the most incredible sunsets...

...And a few sunrises.

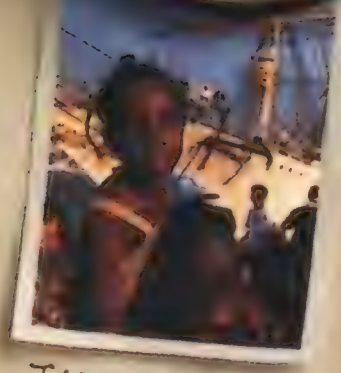


You could almost hear the bugle and smell the gunpowder in the air at Antietam National Battlefield.

We found a taste of the country downtown at the Farmer's Market.



Great Falls- only a quick trip from the City.



Tall ships.
Big fun.

A local tipped us off to a great crab house.

1 Sandy Beach
1 Windy Day
+ 1 Kite
3 happy kids in Ocean City

Parris N. Glendening, Governor
Kathleen Kennedy Townsend, Lt. Governor

Maryland

Welcome

Visit www.1800MDIsFun.org
or Call 1-800-452-6767

For a free vacation guide and travel card, good for tons of hot deals.

**LOST MASTERPIECE:** Excavations revealed a dazzling array of ancient artifacts, including this marble head, likely the representation of a goddess, dating from the early Hellenistic period in the third century B.C.

# Unearthing Athens' Underworld

Throughout the decade-long construction of the city's new metro, archaeologists have found a trove of treasures

BY RUDY CHELMINSKI

ON AN OCTOBER AFTERNOON IN 1997, A TV REPORTER WAS interviewing the owner of a streetside kiosk in downtown Athens about traffic snarls caused by excavations for the city's new subway. As the owner spoke, his kiosk began to sink behind him: like some dry-docked *Titanic* of cigarettes, newspapers and packaged snacks, the little booth disappeared into the netherworld. The Tunnel Boring Machine—or TBM—had struck again.

No one ever assumed that drilling a subway beneath the Greek capital would be easy, but this was carrying things a bit far. At the time of the disappearing kiosk, the TBM—a huge, mole-like mechanical disk armed with steel teeth—was advancing under Panepistimiou Avenue in the heart of downtown Athens, chewing its way through a subsoil primly qualified by engineers as "inhomogeneous," which means changing unpredictably from rock to earth to sand to sponge cake.

As striking as it was to watch a kiosk disappear, far more troubling to city fathers was the loss of a 45-foot section of the third-century A.D. Valerian Wall in the National Gardens. That ancient landmark, bearing the name of the Roman emperor who reigned during its construction, began to slump away when the TBM passed underneath. Both incidents illustrate the unique problems facing planners who, in the early 1990s, promised to have an ultramodern underground transportation network installed in time for the 2004 Olympic Games.

Zeus knows Athens needed it. Over the past three decades, the number of cars in the city has exploded by an estimated 2,000 percent, making it one of the most traffic-jammed and horribly polluted on the Continent. You can still hear the creaky song of cicadas in the plane trees, and the perfumes of honeysuckle and jasmine are not absent from the Athenian air, but the prevailing municipal aroma is automobile exhaust.

So while a metro was decidedly in order, digging into the place where classical civilization flourished represented a daunting challenge. Beneath every famous site where tourists wander today are traces of continuous habitation from the Neolithic period to the present. The subway would be not only Greece's greatest urban public-works project but also the country's most important archaeological dig ever. No less than 50 archaeologists and several hundred laborers were assigned to the endeavor.

By ordaining that excavation would be conducted at a depth of 65 feet, the planners were confident that the TBM would pass safely below the level of the ancient city and its precious artifacts. But even the most archaeologically cor-

**UNDERGROUND GALLERY:** Excavations for the Syntagma station yielded finds that included (far left) a section of a fifth-century B.C. terra-cotta water pipeline, artfully engineered and embedded in a segment of ancient wall; classical Athenian and Roman stelae (center), or inscribed marble tablets—often elaborately embellished—that were placed at interment sites; a skeleton (above) identified as that of a young soldier, from a fourth-century B.C. grave.

rect metro requires stations and ventilation shafts. Certain stations in the heart of old Athens would have to be dug, essentially, by hand.

"The power of the archaeologists was very heavy," says Eftimios Bakas, the dynamic, crew-cutted young spokesman for Attiko Metro, as the subway system authority is known. "We had to respect history, so the Ministry of Culture had an eye on everything. The archaeological digs doubled and sometimes even tripled our delays."

But, says Dimitris Plantzos, curator of the Museum of Cycladic Art (which last year exhibited 514 of the most significant finds from the 30,000 or so unearthed in the first years of the dig, which began in 1992), there were no Pompeiis, no entire settlements uncovered virtually intact. What was found were vases, amphorae and oil lamps, coins aplenty, including bronze pieces and a hefty gold solidus issued by Emperor Justinian II (A.D. 705) and, more movingly, a couple of gold *danakes*, pseudo coins from Hellenistic-period grave sites, buried with the deceased to pay their fare to the underworld. Much of what survived in perfect condition had been buried in the first place. Within this category, even the most commonplace and utilitarian finds could be intriguing, including many drainage and water-supply pipes of clay and terra-cotta from the fifth and sixth centuries B.C. The conduits, beautifully designed with lipped joints, either coupled dry or sealed with lead, feature consecutive sections coded in alphabetical sequence and fitted with sophisticated removable lids over access holes for cleaning and maintenance. Piping of this sort was used to link reservoirs in both Hellenistic and Roman times.

One of the most touching discoveries was the carefully constructed grave—terra-cotta walls, tile floor—of a dog, obviously someone's cherished pet. The little woofer was sent off on his last journey reposing on his left side, a collar studded with embellished copper disks fastened around his neck and two perfume flasks placed lovingly on the floor next to him.

Grave sites, of course, are prime sources of discoveries for archaeologists everywhere. If most of the hundreds uncovered in the metro digs were neat and orderly (and it takes a strong heart not to be moved by the large pots, amphorae or storage jars in which little children were buried), one site from the dig for the Kerameikos subway station presented a ghastly contrast. Excavators there discovered the skeletons of at least 150 men, women and children thrown pell-mell into a pit, without the least ceremony or mark of respect. The remains dated from 430-420 B.C., when plague was upon the land. If anyone ever doubted the accuracy of the

# Love to travel? Love to learn?

## Take the Smithsonian on Your Next Trip

### U.S. AND CANADA TOURS

***DEGAS' DANCERS***
FEBRUARY 27–MARCH 2, 2003
With **William Kloss,** see the exhibition *Degas and the Dance* at the Philadelphia Art Museum. Also visit the Rodin Museum and the Barnes Foundation.

**SARASOTA'S CULTURAL ARTS SCENE**
MARCH 20–23, 2003
Attend theater and opera performances, and visit the Ringling Museum of Art, spectacular private residences, and the Marie Selby Botanical Garden.

**CIVIL WAR REFLECTIONS AND THE ANTEBELLUM SOUTH BY RAIL**
MARCH 27–APRIL 3, 2003
Enjoy a luxurious rail journey from Washington, D.C., to New Orleans, aboard the beautifully restored *American Orient Express.* Stop in Richmond, Charleston, Savannah, and Vicksburg.

**ARIZONA ARCHITECTURE**
APRIL 8–13, 2003
Visit some of the country's most innovative buildings in Phoenix, Scottsdale, and Tucson. Meet architects who discuss their works and their design philosophies.

### INTERNATIONAL TOURS

**THE GENIUS OF AMADEUS: CELEBRATING SALZBURG'S MOZART FESTIVAL**
JANUARY 26–FEBRUARY 4, 2003
Attend dazzling performances at the Salzburg Mozart Festival. Enjoy special private concerts, behind-the-scenes tours, and sample the city's fine restaurants.

**AFLOAT IN ALSACE: AN INTIMATE PORTRAIT OF FRANCE BY BARGE**
APRIL 30–MAY 9, 2003
Aboard the charming, intimate *Lorraine,* journey through canals and locks in northeast France.

**HIDDEN ROMANIA**
MAY 20–29, 2003
Follow popular study leader **Mariana Carpinisan** to her home country and discover fabulous painted churches and welcoming people.

**ITALY'S HEARTLAND: UMBRIA AND THE MARCHES**
JUNE 1–12, 2003
Discover Medieval and Renaissance towns among the emerald hills of central Italy. Go behind the scenes in Assisi.

**CELTIC LANDS**
JUNE 17–JULY 1, 2003
Sail aboard the *Song of Flower* to Celtic sites in the British Isles, Ireland, and France. See castles, stately homes and gardens, and superb museum collections.

### VALUE-PRICED TOURS

**SMITHSONIAN JOURNEYS–TRAVEL ADVENTURES**
Introducing new value-priced learning vacations featuring enriching lectures, fascinating excursions, and time for independent discovery. Choose from Italy, France, Ireland, Britain, Spain, Italian Riviera, Iceland, Costa Rica, Egypt, China, Australia, and New Zealand, the Baltic, Newfoundland and Labrador, Canadian and U.S. National parks, Canadian Rockies and Southwest America, and Eastern U.S. Call **1-800-528-8167** for information.

### INDEPENDENT TRAVEL

**SMITHSONIAN MUSEUM LOVER'S VACATIONS**
Explore London, Paris, Amsterdam, Montreal, New York, and Washington, D.C., on independently scheduled learning vacations—any time of the year! Enjoy museum passes, cultural excursions, fine accommodations and dining, and exclusive *Museum Notes* or a Smithsonian publication—all at a great value!
Call **1-800-528-8167** for information.

# SmithsonianStudyTours.org

For information on any of our 350 worldwide tours call 1-877-EDU-TOUR (1-877-338-8687)
or see www.SmithsonianStudyTours.org

description that Thucydides, in his *History of the Peloponnesian War*, left of those grim days in Athens, this common grave offered eloquent proof: "The calamity which weighed upon them was so overpowering that men, not knowing what was to become of them, became careless of all law, sacred as well as profane. . . . The customs which they had hitherto observed regarding burial were thrown into confusion, and they buried their dead each one as he could."

The two most prized discoveries came to light not during the large-scale excavations for stations, but when two ventilation shafts were being dug near the National Gardens. A first-century B.C. bronze statuette, 11 inches high, of a standing youth is a perfect example of pure late-Hellenistic classicism. Found at the bottom of a well in the Zappeion shaft, it was close to intact. Only the index and pinkie fingers of the right hand had been broken and the nose slightly squashed. The graceful posture, the large, almond-shaped eyes and the dreamy gaze suggest either a deity or an athlete at rest.

An equally extraordinary find was a fifth-century B.C. bronze head, uncovered in a shaft at the northeastern edge of the National Gardens. Although badly corroded and covered with a verdigris patina, the masculine visage is haunting. Rugged features and the impassive gaze of still intact bone-and-polished-stone eyes project an aura of strength that only hints at how dramatic the full statue must have been.

"A masterpiece," said Plantzos simply. "We date it from about 480 B.C., after the Battle of Salamis. The figure represented an athlete or a soldier. What is even more interesting is that while the statue itself was destroyed—bronze was generally recycled—the head was rediscovered in the second century A.D. and set into a block of stone, perhaps as a guardian deity at the entrance to an important building."

With the potential for turning up such treasures, the archaeologists were not likely to concede so much as an inch to the engineers, particularly at the proposed Kerameikos station. Lying just outside the ancient city walls northwest of the Acropolis, Kerameikos, meaning Potter's Quarter, was named for the many ceramic workshops clustered there. Thucydides called it the most beautiful suburb of ancient Athens. But Kerameikos was also the location of the ancient city's most important cemeteries. And when it became apparent that topography, as well as the routing of lines between stations, dictated that any tunnel at Kerameikos would have to be dug at a depth of only 30 feet, archaeologists appealed to the European Commission in Brussels to stop it. In the end, the station was abandoned, requiring a 2,600-foot detour.

Today the Athens subway is essentially finished, with 19 stations and 11 miles of lines reaching out toward the suburbs and converging in the center of town. One last link and station will be completed next year. When the hundreds of thousands of visitors expected for the Olympics flood into the city 21 months from now, they will discover stations shimmering with the pure marble that is almost as common to Athens as concrete is to New York City. Some of the stations could pass for mini-museums, with their displays of ancient statuary, gravestones, amphorae, oil lamps, vases and other vestiges of everyday life thousands of years ago.

"These exhibits are a reward to the Athenians who have lived through the mess of this project for almost ten years," says Plantzos. "Many have probably never taken the trouble to visit the Acropolis, but now you'll see them contemplating the exhibits. They are as proud of their antiquities as they are of their football clubs."

And just in case—in another 2,500 years—archaeologists dig again under this preeminently history-rich city, Attiko Metro has left behind a nice surprise. Somewhere between Syntagma and Monastiraki stations, engineers abandoned a gargantuan TBM that was too costly to dismantle and cart away. I like to imagine these future investigators smiling with patronizing admiration for people who could do such good work with such primitive equipment.

**BURIED TREASURE:** At the Syntagma station, one of the most significant and well-preserved finds was a male nude rendered in white marble and dating from the first century A.D.

*Rudy Chelminski, a freelance writer based in Paris, wrote most recently for* SMITHSONIAN *on Sweden's Ice Hotel.*

P. 120 YANNIS KONTOS; PP. 120,121 MARO KOURI/ON LOCATION; P. 122 YANNIS KONTOS; PP. 122,123 THANASSIS STAVRAKIS/GETTY IMAGES; PP. 123-125 YANNIS KONTOS (2)

PRESENCE OF MIND

# Flawed Founders

## TO WHAT DEGREE DO THE ATTITUDES OF WASHINGTON AND JEFFERSON TOWARD SLAVERY DIMINISH THEIR ACHIEVEMENTS?

BY STEPHEN E. AMBROSE

George Washington (in an 1853 lithograph) oversees his slaves at Mount Vernon.

AMERICANS IN GREAT NUMBERS are rediscovering their founding fathers in such best-selling books as Joseph Ellis' *Founding Brothers*, David McCullough's *John Adams* and my own *Undaunted Courage*, about Lewis and Clark. There are others who believe that some of these men are unworthy of our attention because they owned slaves, Washington, Jefferson, Clark among them, but not Adams. They failed to rise above their time and place, though Washington (but not Jefferson) freed his slaves. But history abounds with ironies. These men, the founding fathers and brothers, established a system of government that, after much struggle, and the terrible violence of the Civil War, and the civil rights movement led by black Americans, did lead to legal freedom for all Americans and movement toward equality.

Let's begin with Thomas Jefferson, because it is he who wrote the words that inspired subsequent generations to make the heroic sacrifices that transformed the words "All men are created equal" into reality.

In 1996 I was a visiting professor at the University of Wisconsin. The History Club there asked me to participate in a panel discussion on "Political Correctness and the University." The professor seated next to me taught American political thought. I remarked to her that when I began teaching I had required students to read five or six books each semester, but I had cut that back to three or four or else the students would drop my course. She said she had the same problem. She had dropped Thomas Jefferson's writings from the required reading list.

"You are in Madison, being paid by the citizens of Wisconsin to teach their children American political thought, and you leave out Tom Jefferson?"

"Yes," she replied. "He was a slaveholder." More than half the large audience applauded.

Jefferson owned slaves. He did not believe that all were created equal. He was a racist, incapable of rising above the thought of his time and place, and willing to profit from slave labor.

Few of us entirely escape our times and places. Thomas Jefferson did not achieve greatness in his personal life. He had a slave as mistress. He lied about it. He once tried to bribe a hostile reporter. His war record was not good. He spent much of his life in intellectual pursuits in which he excelled and not enough in leading his fellow Americans toward great goals by example. Jefferson surely knew slavery was wrong, but he didn't have the courage to lead the way to emancipation. If you hate slavery and the terrible things it did to human beings, it is difficult to regard Jefferson as great. He was a spendthrift, always deeply in debt. He never freed his slaves. Thus the sting in Dr. Samuel Johnson's mortifying question, "How is it that we hear the loudest yelps for liberty from the drivers of Negroes?"

Jefferson knew slavery was wrong

Adapted from *To America: Personal Reflections of an Historian* by Stephen E. Ambrose © 2002. Reprinted by permission of Simon & Schuster, Inc.

CORBIS

and that he was wrong in profiting from the institution, but apparently could see no way to relinquish it in his lifetime. He thought abolition of slavery might be accomplished by the young men of the next generation. They were qualified to bring the American Revolution to its idealistic conclusion because, he said, these young Virginians had "sucked in the principles of liberty as if it were their mother's milk."

Of all the contradictions in Jefferson's contradictory life, none is greater. Of all the contradictions in America's history, none surpasses its toleration first of slavery and then of segregation. Jefferson hoped and expected that Virginians of Meriwether Lewis' and William Clark's generation would abolish slavery. His writing showed that he had a great mind and a limited character.

BETTMANN/CORBIS

**Jefferson's actions fell far short of his ideals.**

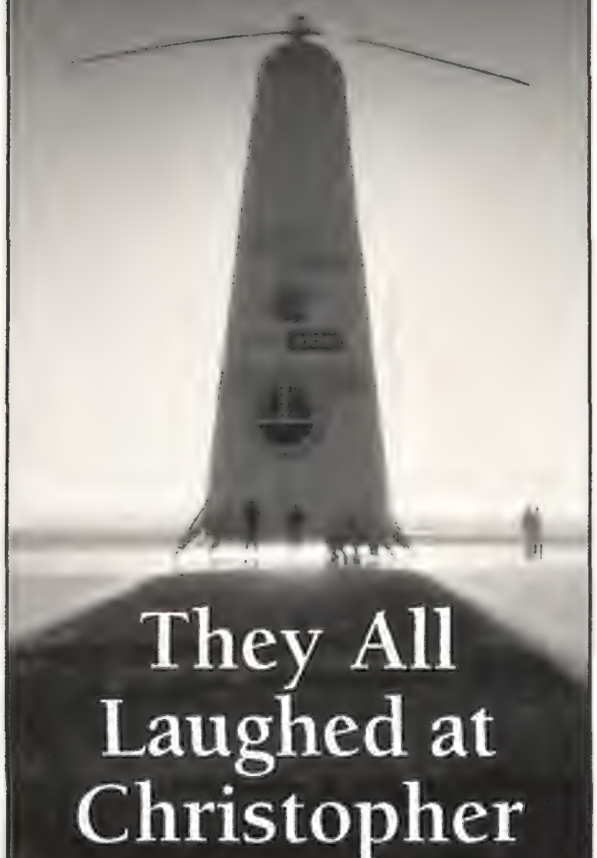
Jefferson, like all slaveholders and many other white members of American society, regarded Negroes as inferior, childlike, untrustworthy and, of course, as property. Jefferson, the genius of politics, could see no way for African-Americans to live in society as free people. He embraced the worst forms of racism to justify slavery.

In *Notes on the State of Virginia*, Jefferson describes the institution of slavery as forcing tyranny and depravity on master and slave alike. To be a slaveholder meant one had to believe that the worst white man was better than the best black man. If you did not believe these things, you could not justify yourself to yourself. So Jefferson could condemn slavery in words, but not in deeds.

At his magnificent estate, Monticello, Jefferson had slaves who were superb artisans, shoemakers, masons, carpenters, cooks. But like every bigot, he never said, after seeing a skilled African craftsman at work or enjoying the fruits of his labor, "Maybe I'm wrong." He ignored the words of his fellow revolu-

Glenfiddich
The independent spirit.
Distilled by an independent family company. Bottled as Glenfiddich, which means "valley of the Deer." Matured at its own Highland distillery for a full 15 years – our Solera Reserve features delicious notes of oak, honey, vanilla spice, fruit and sherry.
AGED 15 YEARS
GLENFIDDICH.COM
2002 Imported By William Grant & Sons Inc., New York, NY 10001. Glenfiddich is a registered trademark of William Grant & Sons Ltd.
40% Alc. By Vol. Our Family Promises You: Enjoy This Whisky Responsibly.

# The true story of how one man's dreams took flight



## They All Laughed at Christopher Columbus

An Incurable Dreamer Builds the First Civilian Spaceship

By ELIZABETH WEIL

He was 7 years old when Sputnik flew, 19 when Neil Armstrong set foot on the moon—and Gary Hudson became obsessed with traveling into space. This is the riveting true story of that seductive passion—the building of his *Roton*, the world's first fully reusable spaceship that would take ordinary people into orbit and back in a single day.

Bantam www.bantamdell.com

AVAILABLE WHEREVER BOOKS ARE SOLD


tionary John Adams, who said that the Revolution would never be complete until the slaves were free.

Jefferson left another racial and moral problem for his successors, the treatment of Native Americans. He had no positive idea what to do with or about the Indians. He handed that problem over to his grandchildren, and theirs.

The author of the Declaration of Independence threw up his hands at the question of women's rights. It is not as if the subject never came up. Abigail Adams, at one time Jefferson's close friend, raised it. But Jefferson's attitude toward women was at one with that of the white men of his age. He wrote about almost everything, but almost never about women, not about his wife nor his mother and certainly not about Sally Hemings.

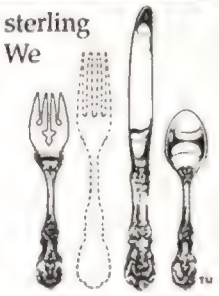
So it is of particular irony to admit that Jefferson was as remarkable a man as America has produced. "Spent the evening with Mr. Jefferson," John Quincy Adams wrote in his diary in 1785, "whom I love to be with. . . . You can never be an hour in the man's company without something of the marvelous." And even Abigail Adams wrote of him, "He is one of the choice ones of the earth."

Jefferson was born rich and became well educated. He was a man of principle (except for slaves, Indians, and women). His civic duty was paramount to him. He read, deeply and widely, more than any other president of the United States except, possibly, Theodore Roosevelt. He wrote well and with more productivity and skill than any other president except, perhaps, Theodore Roosevelt. Wherever Jefferson sat was the head of the table. Those few who got to dine with him around a small table always recalled his charm, wit, insights, queries, explanations, gossip, curiosity, and above all else his laughter.

Jefferson's range of knowledge was astonishing. Science in general. Flora and fauna specifically. Geography. Fossils. The classics and modern literature.


## MISSING A PIECE OF YOUR PATTERN?

Replace pieces or add to your sterling silver at up to 75% off retail. We specialize in new and used flatware and hollowware. Over 1,200 patterns in stock. Call or write for a free inventory of your sterling pattern. *(We buy sterling silver, with a careful appraisal for maximum value.)*



Shown: Francis I by Reed & Barton

Beverly Bremer SILVER SHOP

3164 Peachtree Rd. NE, Dept SM, Atlanta, GA 30305 / Mon.-Sat. 10-5
Tel: 404-261-4009, Fax: 404-261-9708 www.beverlybremer.com

## AROUND THE WORLD

Barque Picton Castle Sails June 1, 2003.

Tropical islands, exotic ports. Sail the trade winds to the South Pacific, Far East, Africa. Join the working crew of this 12-month cost-sharing adventure.

Inquire:
(603) 424-0219
www.picton-castle.com
email: info@picton-castle.com

JOHN ⚓ CHRISTIAN
DESIGNERS & CRAFTSMEN

YOUR *Anniversary Date* IN ROMAN NUMERALS! (GOLD AND PLATINUM)

*December 11, 1998*
XII XI MCMXCVIII

14K GOLD $450

Free Brochure

www.ringbox.com 1-888-646-6466

Teddy Bear Bracelet *14K Gold $695 • Sterling Silver $185*
Unconditionally Guaranteed V/MC/Amex/DC
1-800-477-1856 • N. Churton St. • Hillsborough, NC 27278

EUROPE $200* ROUNDTRIP

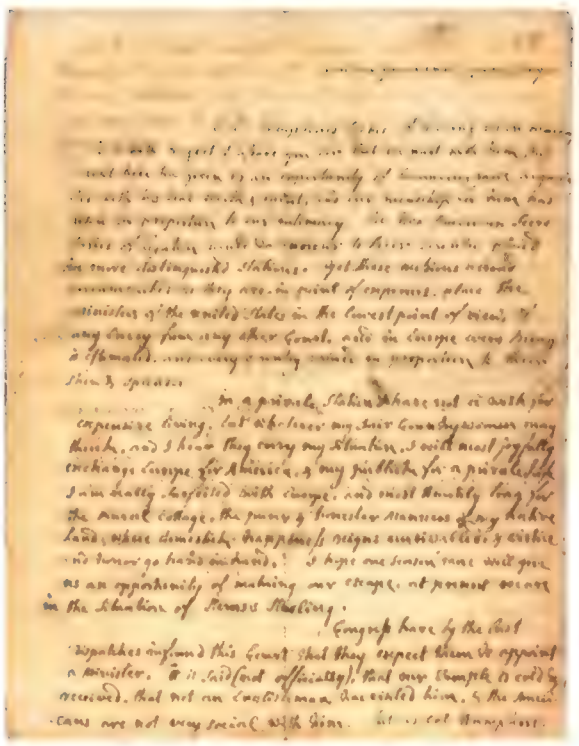
London, Paris $200. Hong Kong $100.
Bangkok $300. Mexico $150.
Caribbean $250. So. America $200.
Hawaii $238. ALL ROUNDTRIP!

1-800-822-0888
Cheaptrips.com

*Subject to availability, membership & departure.

Languages. Politicians of all types. Politics, state by state, county by county. International affairs. He was an intense partisan. He loved music and playing the violin. He wrote countless letters about his philosophy, observations of people and places. In his official correspondence, Jefferson maintained a level of eloquence not since equaled. I've spent much of my professional life studying presidents and generals, reading their letters, examining their orders to subordinates, making an attempt to judge them. None match Jefferson.

In spite of these rare abilities, Jefferson was not a hero. His great achievements were words. Except for the Louisiana Purchase, his actions as president fall short. But those words! He was the author of the Declaration of Independence. The second paragraph begins with a perfect sentence: "We hold these truths to be self-evident, that all men are created equal." Those words, as the historian Samuel Eliot Morison has said, "are more revolutionary than anything written by Robespierre, Marx, or Lenin, a continual challenge to ourselves, as well as an inspiration to the oppressed of all the world." Eventually, with Lincoln, who articulated and lived these truths, and slowly afterward, the idea made its progress.



**In 1786, Abigail Adams wrote to Jefferson of the difficulties of American diplomacy.**

Jefferson was the author of the Virginia Statute of Religious Freedom, a doctrine that spread throughout the United States. He is the father of our religious freedom. It is, next to the words of our independence, his greatest gift, save only perhaps our commitment to universal education, which also comes to us via Jefferson.

The Northwest Ordinance of 1787 was based on Jefferson's "Report of a Plan of Government for the Western Territory" written three years earlier. In it, he made certain that when the populations of Ohio, Indiana, Illinois, Wisconsin, and Michigan were large enough, these and other territories would come into the Union as fully

See a world built by hand and preserved by miracle.

Want to know where this is? Visit arizonaguide.com.

Discover Arizona, where Native American settlements still stand as monuments to our earliest creativity. For your free travel packet, contact the Arizona Office of Tourism toll-free at 866-663-6643.

ARIZONA
GRAND CANYON STATE

**Goose down robe**

Surround yourself in warm, light-weight elegance. Supersoft easy care cotton fabric. Contrasting piping, shawl collar and roll back cuffs. Fully guaranteed. Order cream, peach, bluette, light green, navy, burgundy or teal. Sizes XS, S, M, L. Regularly $160. **Sale $89.** Shipping and handling, $7.95.

**Goose Down Slippers** match robes in cream, peach, bluette, light green, navy, burgundy or teal. XS, S, M, L. Regularly $38. **Sale $22.** Shipping $4.95.

- ❑ Order by phone with MC or VISA, call 415/472-2154.
- ❑ Use MC, VISA or check for mail orders.

CA residents add 7.25% tax

WARM THINGS

180 Paul Dr., Dept. SO/San Rafael, CA. 94903
415/472-2154 • Ship within 48 Hrs. • MC/VISA
www.warmthingsonline.com

**Swim at Home™**

Swim or exercise against a smooth current adjustable to any speed or ability. Ideal for swimming, water aerobics, rehabilitation and fun. The 8′ x 15′ Endless Pool® is simple to maintain, economical to run, and easy to install inside or outdoors.

**FOR FREE VIDEO CALL**
**(800) 233-0741, Ext. 2186**
or visit www.endlesspools.com
200 E Dutton Mill Rd, Dept 2186
Aston, PA 19014
ENDLESS POOLS

Celebrate July 4th & All Events
**BIG-BANG® CANNON**
GREAT GIFT IDEA! $159.95

**The only SAFE substitute for fireworks!** Cannons produce a loud bang with a realistic flash of light. Patented in 1907. Made of cast iron and sheet metal. Easy loading and firing. Great for display when not in use. Made in the USA to last a lifetime. Available in 3 sizes: 9" cannon, **$69.95 postpaid;** 17" cannon, **$129.95 postpaid;** 25" cannon (shown here) with rapid firing and automatic loading, **$159.95 postpaid.** The larger the cannon the louder the bang! **Bangsite® ammo, about 100 shots, $8.50; 3-pack $20.00. Spark plugs, 3-pack $2.00.** Order via mail, phone or website. Mastercard, Visa, check or money order accepted. Money back guarantee. *Send for* **FREE CATALOG!**

**The Conestoga Co., Inc., Dept S, PO Box 405, Bethlehem, PA 18016**
**★★ Call 1-800-987-BANG ★★**
**www.bigbangcannons.com**


equal states. They would have the same number of senators and representatives as the original thirteen. They would elect their own governors, and so on. He was the first who had the thought that colonies should be equal to the thirteen original members of the Union. No one before him had proposed such a thing. Empires were run by the "mother country," with the king appointing the governors. It was Jefferson who decided that we wouldn't do it that way in the United States. The territories would be states. He applied the principles of the Northwest Ordinance to the Louisiana Purchase territories, and by later extension to the West Coast. It was Jefferson who envisioned an empire of liberty that stretched from sea to shining sea.

WASHINGTON AND JEFFERSON WERE both rich Virginia planters, but they were never friends. Washington did not have Jefferson's IQ. He was not anywhere near as good a writer. He was not as worldly. He had less formal education than any subsequent president, except Abraham Lincoln. He towered over his contemporaries, literally so. He was a six-foot-three general; his soldiers averaged five-foot-eight. He was not a good general, or so his critics say. His army lost more battles than it won.

But Washington held the Continental Army together, "in being" as the military expression puts it, and he had a masterly judgment of when and where and how to strike the British in order to raise morale among his soldiers and throughout his country—perhaps most symbolic was his crossing the Delaware River at Christmastime in 1776, when in a lightning week of campaigning he picked off the British garrisons at Trenton and Princeton, taking many prisoners and valuable supplies. The next winter he spent with his soldiers in a freezing Valley Forge. From there, he directed the strategy of the war, turned the Revolutionary army from a ragtag collection into a solid regular army,


**Yacht-style exploration of Caribbean & Central America**

Belize
Panama
Virgin Islands
Bahamas
St. Maarten
Antigua

Explore out-of-the-ordinary tropics from the intimate perspective of our personable US flag small ships. Go where the big ships can not. BYOB and casual. Glass-bottom boat and snorkel gear. Only 100 guests. As seen on PBS series *Cruising America's Waterways*. Family-operated for 36 years. Call for cruise catalog.

800-556-7450 www.accl-smallships.com
AMERICAN CANADIAN CARIBBEAN LINE PO Box 368, Warren, RI 02885

**FLYING REINDEER**

A ruby nosed reindeer from our workshop in Sterling Silver $75 or 14K Gold $450. Add $6 handling. Call for a catalog 800-767-6411 or visit us at: *breakell.com*

**J.H. Breakell & Co.**
132 Spring Street, Dept. SMRE, Newport, RI 02840

LITTLE ST. SIMONS ISLAND

**PRISTINE & PRIVATE GEORGIA ISLAND GETAWAY**
*10,000-acres, 7-mile beach...only 30 guests.*
*Gracious accommodations, gourmet cuisine.*
*Activities and Nature Programs.*
**1-888-733-5774**
**www.LittleStSimonsIsland.com**

**World's Best Cheddar**
*22nd Biennial World Championship Cheese Contest*

CABOT Vermont
DAIRY FARMER OWNED SINCE 1919
www.cabotcheese.com

**COPPER CANYON**
**Costa Rica, Peru and More**
Join us on our deluxe escorted and custom adventures. Free newsletter:
**1-800-926-1140**
**www.calnative.com**
CST 2027100-40
The California Native, 6701 W 87 Pl, Los Angeles, CA 90045

**EUROPE'S RIVERS & WATERWAYS**
Discover the true charm of the Old World as you cruise in the comfort and intimacy of your exclusively chartered vessel.
**Call 800-964-0500 for a free 2003 catalog.**
INTRAV www.intrav.com

**The Petite Bourse**
- Our lightweight everyday errand bag!
- Display the emblem of France with our durable **Rooster Rust** tapestry.
- Zip top; fully lined; inside pocket; unstructured; 13"w x 10.5"h

**$54** (plus $5.50 s/h)
(800) 806-2326
accessoriesfrance.com

forced the politicians in Congress to support him, and emerged as the one who would lead the nation through the Revolutionary War.

Washington's character was rock solid. At the center of events for 24 years, he never lied, fudged, or cheated. He shared his army's privations, though never pretended to be "one of the men." Washington came to stand for the new nation and its republican virtues, which was why he became our first president by unanimous choice and, in the eyes of many, including this author, our greatest.

Washington personifies the word "great." In his looks, in his regular habits, in his dress and bearing, in his generalship and his political leadership, in his ability to persuade, in his sure grip on what the new nation needed (above all else, not a king), and in his optimism no matter how bad the American cause looked, he rose above all others. He established the thought, "We can do it," as an integral part of the American spirit. He was indispensable, "first in war, first in peace, first in the hearts of his countrymen." Abigail Adams, again, so insightful in her descriptions, quoted John Dryden to describe Washington: "Mark his majestic fabric. He's a temple sacred from his birth and built by hands divine."

Of the nine presidents who owned slaves, only Washington freed his. He resisted efforts to make him a king and established the precedent that no one should serve more than two terms as president. He voluntarily yielded power. His enemy, George III, remarked in 1796, as Washington's second term was coming to an end, "If George Washington goes back to his farm, he will be the greatest character of his age." As George Will wrote, "the final component of Washington's indispensability was the imperishable example he gave by proclaiming himself dispensable."

Washington was a slaveholder. In New Orleans, in the late 1990s, George Washington Elementary School was renamed Charles Richard Drew Elemen-

temporary
amnesia
(on loan from the sonesta collection)
forget it all. your name. occupation. why you needed a vacation in the first place. the only thing you need to remember is sonesta. for sonesta specials available right now, call your travel agent, 800-SONESTA or visit www.sonesta.com.
Sonesta Hotels, Resorts & Nile Cruises
for a limited time, exclusive offers are available at many hotels in the sonesta collection.
boston • miami • new orleans • anguilla • bermuda • egypt • peru • tuscany

Vixen Hill Gazebos

Discover our wide selection of modular, cedar Gazebos and screened GardenHouses pre-engineered for easy assembly by the non-carpenter. **Catalog $5** (Free from our web site.) ***800-423-2766***

**www.VixenHill.com**

Vixen Hill Dept. SM • Elverson, Pa. (19520)

**MEN'S WIDE SHOES**

**EEE-EEEEEE, SIZES 5-13**

- FREE catalog
- High quality
- 200 styles

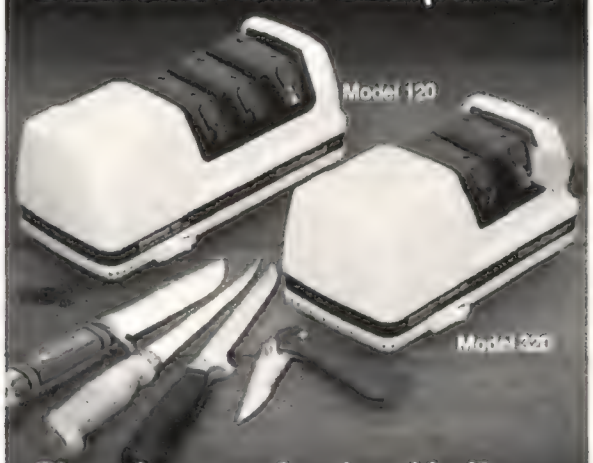
**HITCHCOCK SHOES, INC.**

Dept. 21S Hingham, MA 02043

1-800-992-WIDE www.wideshoes.com

**Chef'sChoice®**

**Diamond Hone® Sharpeners**




**Choosing a professional knife sharpener has never been easier...**

- The world's most advanced sharpeners, for **fine** edge and **serrated** knives.
- Diamond abrasives and a revolutionary stropping/polishing system create the most durable, razor sharp edges in seconds.
- Precision guides eliminate all guesswork.
- Models to fit your budget.
- Made in U.S.A.

For a store near you, call:

**800-342-3255**

www.chefschoice.com

© 2002 EdgeCraft Corporation, Avondale, PA 19311

# Provide For Your Future And The Smithsonian's.

That's exactly what Gloria Hamilton is doing by making a Smithsonian charitable gift annuity.

"I had some stocks that were paying very little in dividends, but the capital gains tax on selling them would have been tremendous. I realized that creating a charitable gift annuity with the Smithsonian would work to benefit both of us."

Advantages of a Smithsonian Gift Annuity include lifetime payments at attractive rates, plus significant tax benefits for your charitable contribution.

Gloria Hamilton, a special friend who is thinking of the Smithsonian's future.

## Sample Rates

Effective July 1, 2001
(ONE BENEFICIARY)

| | |
|---|---|
| Age 65 | 6.7% |
| Age 75 | 7.9% |
| Age 85 | 10.4% |
| Age 90+ | 12.0% |

☐ Send information on a Smithsonian Charitable Gift Annuity

Birthdates(s):_____

Amt: ❑ $10,000 ❑ $100,000 ❑ $50,000 ❑ _____

☐ I want to know more about gifts to the Smithsonian that provide me with income for life

☐ Send information on including the Smithsonian in my will

☐ I have already included the Smithsonian in my will

Name: _____

Address: _____

_____

Phone: _____

Smithsonian Legacy Society
P.O. Box 37012 • MRC 035
Washington, D.C. 20013-7012

PGSM211SM

Smithsonian Institution
P.O. Box 37012 MRC 035
Washington, D.C. 20013-7012

Smithsonian Legacy Society
(888) 419-7584
e-mail: legacy@omd.si.edu
www.si.edu/plangiv


tary School, after the developer of blood-banking. I don't see how we can take down the name of the man whose leadership brought this nation through the Revolutionary War and who turned down a real chance to be the first king of the nation.

"But he was a slaveholder," students sometimes say to me.

"Listen, he was our leader in the Revolution, to which he pledged his life, his fortune, and his honor. Those were not idle pledges. What do you think would have happened to him had he been captured by the British Army?

"I'll tell you. He would have been brought to London, tried, found guilty of treason, ordered executed, and then drawn and quartered. Do you know what that means? He would have had one arm tied to one horse, the other arm to another horse, one leg to yet another, and the other leg to a fourth. Then the four horses would have been simultaneously whipped and started off at a gallop, one going north, another south, another east and the fourth to the west.

"That is what Washington risked to establish your freedom and mine."

OUR NATION'S CAPITAL ABOUNDS WITH commemorations of our president heroes, including the Lincoln, Jefferson and FDR memorials. The one that stands out is the Washington Monument, the tallest, most superbly designated, and most immediately recognized. It is our tribute to the man who won the Revolutionary War and who, as our first president, did more than anyone to create the republic. Jefferson extended it from the Mississippi River to the Rocky Mountains. Lincoln preserved it. Franklin Roosevelt led it to triumph in the greatest war ever fought. But it was George Washington who set the republican standard. So long as this republic lasts, he will stand first.

The Mall that stretches out from Washington's monument has been the scene of controversy, protest, and persuasion, as it should be in a democracy.

AUDUBON

Specializing in the finest original Natural History Art from the 17th to 19th centuries. Works by Audubon, Gould, Besler and many others. Call or write for our brochure.

**KENYON OPPENHEIMER, INC.**
Wrigley Building, 410 N. Michigan Ave.
Chicago, IL 60611 • 312-642-5300
*Est. 1969* *www.audubonart.com*

Nap Time.
Sterling silver kitty or pup pendant, 18" chain, gift box, $75, 2/$135. Full guarantee. Toll-free (866)480-0040

L & D Designs
Big Apple
PIN or PENDENT
14 Karat Gold $480.00
Sterling Silver $55.00
Gold Plate $30.00
©1999
TOLL FREE 1-866-338-1300

COLORADO MONTANA UTAH SOUTH CAROLINA
GREAT SKI & BEACH VACATIONS
800.763.5045 SURF OUR WEB GUIDES Ad #26H
www.eastwestresorts.com

AFRICA • CHINA • INDIA • JAPAN • NEPAL • SRI LANKA • TAIWAN
Since 1989
UPTON TEA IMPORTS
*Purveyor of the World's Finest Teas*
1-800-234-8327 Free catalog listing over 320 varieties of garden-fresh, loose tea
*www.uptontea.com*
34 A Hayden Rowe St.*Hopkinton, MA 01748

AUTHORS WANTED
Leading subsidy book publisher seeks manuscripts. Fiction, non-fiction, poetry, juvenile, religious, etc. New authors welcomed. For free 32-page illustrated guidebook TD-72, call 1-800-821-3990 or write to:
Vantage Press, 516 W 34th St., New York, NY 10001

There, our national discord has been on display, and our national step-by-step progress demonstrated for. There, Martin Luther King, Jr., spoke the words that characterized and led the way to civil rights for African-Americans and all other Americans: "I have a dream." There, citizens, including my wife and I, gathered in huge numbers to protest the Vietnam War.

The Washington Monument and the Jefferson and Lincoln memorials remind us that greatness comes in different forms and at a price. Jefferson, by his words, gave us aspirations. Washington, through his actions, showed us what was possible. Lincoln's courage turned both into reality.

Slavery and discrimination cloud our minds in the most extraordinary ways, including a blanket judgment today against American slave owners in the 18th and 19th centuries. That the masters should be judged as lacking in the scope of their minds and hearts is fair, indeed must be insisted upon, but that doesn't mean we should judge the whole of them only by this part.

In his last message to America, on June 24, 1826, ten days before he died on July 4 (the same day that John Adams died), Jefferson declined an invitation to be in Washington for the 50th anniversary of the Declaration of Independence. He wrote, "All eyes are opened, or opening to the rights of man. The general spread of the light of science has already laid open to every view the palpable truth that the mass of mankind has not been born with saddles on their backs, nor a favored few booted and spurred, ready to ride them."

He died with hope that the future would bring to fruition the promise of equality. For Jefferson, that was the logic of his words, the essence of the American spirit. He may not have been a great man in his actions, or in his leadership. But in his political thought, he justified that hope.

*Historian Stephen E. Ambrose has written best-sellers on World War II and Lewis and Clark.*

Russia
River Cruises
**Discover the most enjoyable and hassle-free way to travel through Russia**

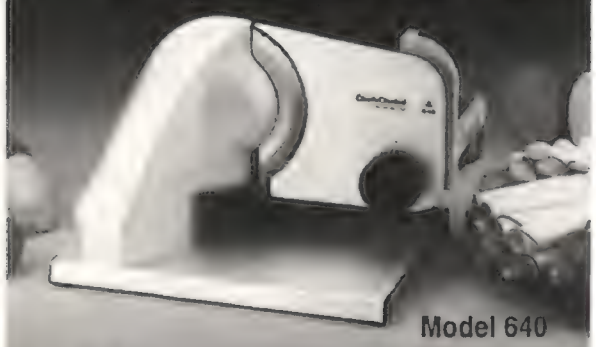
**Experience the grandeur of Russia from the comfort of a cruise ship.** Spend 3 nights each in Moscow and St. Petersburg, staying onboard your floating hotel, and cruise the "Waterways of the Czars," the scenic rivers and lakes of Old Russia. Sail aboard the best ships in Russia. All shore excursions are included, plus lectures aboard and evening performances ashore. **12 to 14-day cruises from $2398 including airfare.**

China & Yangtze Cruises
**Discover the best value to China**

Choose from our expertly designed deluxe escorted tours, 10 to 19 days. Stay at deluxe hotels and cruise on the majestic Yangtze onboard the ships of Victoria Cruises, the only U.S.-based cruise line in China. All meals are included, plus performances and cultural highlights. **From only $1898 including airfare.**

See your travel agent or call
800-645-0793
UNIWORLD
www.uniworld.com

**Chef'sChoice®**
Professional Food Slicer



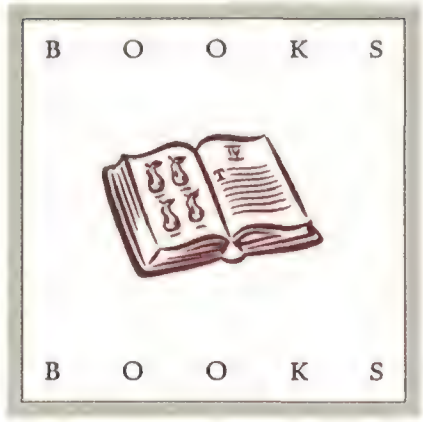
Model 640

NEW!
**Professional Food Slicing At Home!**

- Rugged metal construction
- Precise thickness control
- Powerful, whisper quiet motor
- Versatile stainless blade slices meat, cheese, bread, vegetables, fruit and more
- Larger food carriage capacity
- New easy to clean cantilever design
- Holds any size serving tray

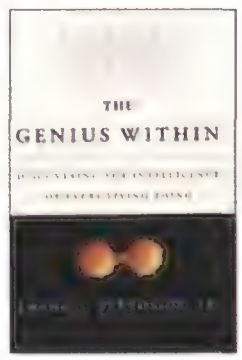
For the retailer nearest you, call:
**EdgeCraft**
**(800) 342-3255**
www.edgecraft.com

© EdgeCraft 2001, Avondale, PA 19311


### *The Genius Within*

Frank T. Vertosick, Jr.
Harcourt, $26




THE STUDY OF genetics commenced when the 19th-century Austrian monk Gregor Mendel unlocked the secrets of inherited traits by cross-pollinating peas in his garden. Now genetics research has become as much industry as science, attracting salesmen and sages to lead us down a garden path far removed from Mendel's pea patch. A new book by neurosurgeon Frank T. Vertosick, Jr., *The Genius Within*, offers a blunt warning: "Those who view genes as the irreducible building blocks of life are mistaken."

After all the attention devoted to DNA, including dramatic developments in genetic engineering and the pioneering Human Genome Project, Vertosick's assertion may come as a shock. But *The Genius Within* is only the latest in a series of important and largely ignored books and articles by biologists refuting the widely held presumption that DNA, the cell's repository of genetic material, holds the "secret of life." Genes may be likened to rules, the dissenters counter, but a cell may have a mind of its own as it determines how to enact genetic commands. Unraveling a sequence of DNA is akin to learning a word's spelling but not unlocking its meanings in different contexts.


**Live to retire.**

*Retire to live!*
Expand your horizons in the stunning beauty of the Rincon Valley in Tucson, Arizona. Discover our wellness and lifelong learning programs.
**Toll Free (877)647-0171**
THE ACADEMY Village
*A Community for Creative Living*
**www.TheAcademyVillage.com**

**Bagels Forever**
Ship *Real* Bagels Anywhere In The U.S.A.
12 Varieties 4 dozen for $14 + Shipping
www.BagelsForever.com
Or call 608-231-2427 or fax 608-231-1249
P.O. Box 5547, Madison, WI 53705

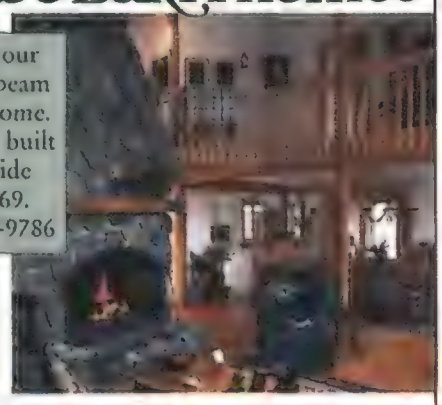
www.dallaspridgenjewelry.com
**DALLAS PRIDGEN JEWELRY**
One at a time, by hand

**Rabbits Bracelet, 9 links** *Sterling $165 • 14K Gold $595*
**Pendant** *Sterling $35 • 14K Gold $80*
Unconditionally guaranteed **1-800-477-1856**
104 N. Churton St. • Hillsborough, NC 27278

**KNITTING PATTERN BOOKS**
**"Sweaters for Teddy Bears" Books 1, 2, & 3**
Betty Lampen 2930 Jackson St.
San Francisco, CA 94115-Dept SS
Books $7 each, including postage
CA residents add sales tax.
Credit Card acc through PayPal
**www.bettylampenknitbooks.com**

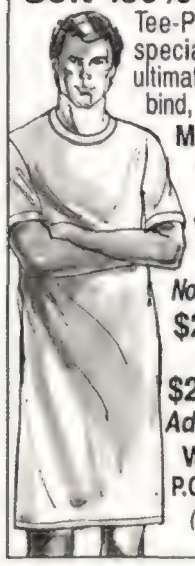
*Geographic*
**EXPEDITIONS®**
Asia, Africa, the Americas, & Europe
(800) 777-8183 www.geoex.com
*Named Best for Adventure Travel*
CST #1004401-10

**Yankee Barn Homes®**
Design your post and beam country home. Kit homes built nationwide since 1969. 1-800-258-9786



WWW.YANKEEBARNHOMES.COM
*See the best website in housing!*

**Better Way To Sleep**
**Soft 100% Cotton Knit TeePJ's™**



Tee-PJ's are not ordinary nightshirts. The special knit moves as you move for the ultimate in sleeping and lounging comfort. No bind, no bunch, no buttons, no side seams.
**Most comfortable sleeper you've ever worn or your money back!**
***Great for Ladies, too.***
White or Soft Blue. sizes to fit 90-300 lbs.
Specify man/lady and height/weight.
*No extra charge for XXL & XXXL on 1st order!*
**$21.95ea. 2 for $39.90 (Save $4)**
Long sleeve style (not shown)
**$25.95ea. 2 for $46.90 (Save $5)**
*Add $4 to order for Shipping/Handling*
**WITTMANN TEXTILES, Dept. 446**
P.O. Box 1066, Hobe Sound, FL 33475-1066
*(Ship to FL add tax)* 1-772-546-4656
visit us at www.sleepshirt.com

**European Beret $10**
100% Wool • One Size Fits All
Black, Navy, Brown, Red, Camel, Grey
Check or Credit Card w/Exp. Date.
Add $2 shipping per order
**www.johnhelmer.com**
**John Helmer** • Est. 1921 • (503) 223-4976
969 S.W. Broadway, Dept. S112 • Portland, OR 97205

***Thrilling Sea Classics***
Alexander Kent • Dudley Pope
Douglas Reeman • Dewey Lambdin
At bookstores or call toll-free to place an order or to receive our free book catalog:
**1-888-266-5711.**
Visit us at www.mcbooks.com
McBOOKS PRESS
520 N. Meadow St.
Ithaca, NY 14850

Remarkably, these challenges to the primacy of DNA—an assumption nearly tantamount to dogma—come from the ranks of the scientific community itself, not from creationists or theologians arguing an "intelligent design" of the universe. Vertosick calls into question the gospel according to double helix decoders Watson and Crick, rooted in the Darwinian idea that life evolves through random events as "a blind process, possessing neither insight nor forethought."

I must admit I've waited more than half a lifetime for this book. As a high school student staring for hours through microscopes, I was filled with wonder about the behavior of single-celled organisms, whose life cycles seemed to encompass both randomness and purpose. I spent summers in the woods, observing spiders and wasps, salamanders and snakes, fascinated by the seemingly intelligent behavior of animals. I perceived sentience in creatures assumed to operate on the basis of instincts and genes alone. But I was taught to dismiss such heresy.

*The Genius Within* has stirred up those youthful notions. Vertosick provides a new framework for understanding the intelligence of all life, from bacteria to cancer cells to brains. There is mind in nature, he argues, and it's everywhere. Bacteria may not write sonnets, but they have the capacity for intraspecies communication. "Chemistry is *their* language," he says, "and they've been speaking it for millions of years."

After he lays out the many different strategies bacteria use to develop resistance to antibiotics—borrowing genes from other species or from viruses, speeding up mutation rates a thousandfold, modifying cell walls to resist attack, producing an arsenal of enzymes to disable drugs—it's hard to argue that mindless natural selection can explain it all.

It is as a physician that Vertosick challenges biology's conventional wisdom. "Darwin observed the creatures of the world with a keen eye, but he never fought them one on one," he says. "For those of us who

ORIENT LINES SPECIALIZES IN
SCANDINAVIA & RUSSIA
CruiseTours® – 11- to 18-days from $2,055*
Cruise from captivating Copenhagen or beautiful Stockholm to Baltic capitals and playgrounds of Russia's czars. Wind through towering Norwegian fjords to Viking ports. Or visit royal castles and Prussian palaces on a voyage offering London, Amsterdam, even Berlin. Aboard the elegant, mid-sized Marco Polo enjoy a more intimate travel experience. And as part of every CruiseTour® vacation, pre- and/or post-cruise, hotel stays and city tours are included to give you an in-depth look at Copenhagen or London. Making Orient Lines not only Europe's best cruise value, but also its best cruise experience.
ORIENT LINES
www.orientlines.com
For reservations, see your travel agent. For brochures, call 1-800-333-7300.
*Fare shown in U.S. dollars for CruiseTour only, per person, based on double occupancy, for a minimum category inside stateroom, applicable on select sailings only. Air fare is additional to CruiseTour fare and available from select U.S. cities. CruiseTour fare includes government fees, service fees, taxes and gratuities which are not subject to any discounts. All offers are based on availability, capacity controlled, not combinable with other offers, subject to change without notice and may be withdrawn at any time. Ships' Registry: Bahamas. © 2002 Orient Lines

**Handcrafted Furnishings**

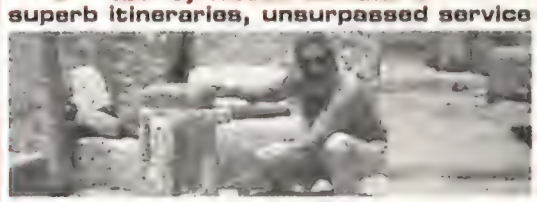
Offering classic furnishings handcrafted in solid cherry, mahogany, and walnut woods. Choose from beds, chests, dining pieces, accent tables, secretaries, and more.

Call for a free brochure **1.800.252.2131.** Online catalog www.suters.com

Suter's

Showrooms • 2610 S. Main St. • Harrisonburg, VA • 540.434.2131
4200 W. Broad St. • Richmond, VA • 804.358.8497

**archaeological tours**
led by noted scholars
superb itineraries, unsurpassed service



2002 TOURS

| SPRING | FALL | |
|---|---|---|
| Syria & Jordan | Caves & Castles | Ancient Capitals of China |
| Sicily & So. Italy | Albania | Spain |
| Western Turkey | Silk Road of China | Northern India |
| Tunisia | Zanzibar & Oman | Ethiopia |
| Cyprus, Crete & Santorini | Morocco | WINTER |
| SUMMER | Syria & Jordan | Mali |
| Eastern Turkey | Egypt | Khmer Kingdoms |
| Peru | Sicily & So. Italy | Burma In-Depth |
| | Japan | ...and more |

271 Madison Ave. 904sm, NY, NY 10016
(212) 986-3054 Toll Free: (866) 740-5130

**World's Largest Inventory!**
**China, Crystal, Silver & Collectibles**

- *Old & New*
- *125,000 Patterns*
- *6 Million Pieces*
- *Buy & Sell*

Call for **FREE** lists.
REPLACEMENTS, LTD.®
PO Box 26029, Greensboro, NC 27420 Dept. SM
1-800-REPLACE (1-800-737-5223)
*www.replacements.com*

**Polar Bears**
*of Churchill, Manitoba*

Join us for the world's greatest gathering of polar bears, viewed from the safety and comfort of Polar Buggies™.

7-day Tour: $2,495
**800-368-0077**
www.travelwild.com
SM65

TravelWild EXPEDITIONS

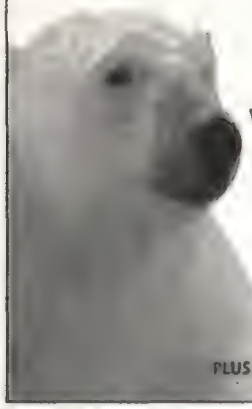
**POLAR BEARS**

View the polar bears of Churchill, Canada, up close and safely aboard our world famous Tundra Buggies®. Over 60 options to choose from during Oct/Nov. **Plus other great wildlife trips worldwide including:**

- Galapagos Islands
- Ruins of Peru
- Rainforests of Belize

www.wildlifeadventures.com

800-593-8881



INTERNATIONAL Wildlife ADVENTURES

PLUS OTHER GREAT WILDLIFE TRIPS WORLDWIDE



**Vantage PRO®**

**Wireless Weather Station**

**Keep an eye on critical weather conditions:**

- Wind • Rain • Humidity
- Temperature • And much more!

**FREE CATALOG!**

***Davis Instruments***

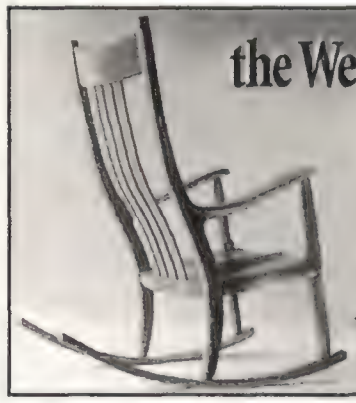
3465 Diablo Ave, Hayward, CA 94545

800-678-3669 • www.davisnet.com

SMI0211



**the Weeks Rocker**



- handmade
- comfortable
- beautiful
- built to last

888-334-0307

www.garyweeks.com

(dining furniture also)



www.dallaspridgenjewelry.com

DALLAS PRIDGEN JEWELRY

One at a time, by hand

**Pig Bracelet** *14K Gold $595 • Sterling Silver $165*

**Pin or Pendant** *14K Gold $85 • Sterling Silver $35*

Unconditionally Guaranteed • V/MC/Amex/DC

1-800-477-1856 • N. Churton St. • Hillsborough, NC 27278


stare into the shining eyes of the world's predators, we know how cunning they are at what they do."

Genetic engineering is based on the belief that DNA alone defines life. If that is true, gene swapping among species might be safe enough. But if it isn't, inserting fragments of foreign genetic code into intelligent, dynamic networks of cells may be fraught with risk.

The ecologist Barry Commoner, an early critic of the DNA creed, points out that DNA can make accurate copies of itself only because an array of protein enzymes in the cell repair its frequent mistakes. A single gene may code for hundreds or even thousands of different proteins—and proteins build genes—in a dialogue we don't yet understand. Commoner recently warned that this complexity suggests "any artificially altered genetic system, given the magnitude of our ignorance, must sooner or later give rise to unintended, potentially disastrous, consequences."

The anthropologist Gregory Bateson (1904-1980), whose father coined the term genetics, shared Vertosick's view of modern geneticists. As he put it, "They are mistaking the menu for the meal." With so many genetically modified foods now on the supermarket shelves, we all may be eating those mistakes.

*Reviewer and former* Smithsonian *editor Paul Trachtman is a writer based in New Mexico.*

***The Backbone of the World***

Frank Clifford

Broadway Books, $24.95

WE'VE BEEN HOLDING last rites for the American frontier every few years since Frederick Jackson Turner pronounced it defunct in the 1890s. The trouble is that the frontier—and people who choose that life of open space and a certain American kind of freedom—refuses


**WOOL CAPES**

Casco Bay Wool Works

Capes, Shawls & Fine Woolens

Portland, Maine

10th Anniversary **SALE**

Made in Maine. Satisfaction guaranteed.

Free Color Brochure: 1-888-352-5551

Order on-line: cascobaywoolworks.com/sm

**Over 200 Pirate Gifts!**

World's best selection of new pirate books, flags, music, jewelry, toys, party supplies, treasures and glow-in-the-dark boxer shorts. Visa/MC accepted. Free catalog.

www.ferncanyonpress.com • (805)927-4151



Ecotour Expeditions

**Amazon!**

**Alaska!**

*Call for a Free Catalog*

800-688-1822

***Exceptional Nature Tours Since 1989***



COUNTRY WALKERS

*23 years of excellence in worldwide walking vacations*

Free Catalog Call 800.464.9255

or contact your local travel agent

www.countrywalkers.com

A Grand Expeditions Company



**To find out what it's really like in space, you have to ask someone who's been there.**

20 years

77 astronauts

174 stories

385 pictures

**SPACE SHUTTLE:**

**The First 20 Years**

The Astronauts' Experiences in Their Own Words

From the Editors of Air & Space / Smithsonian

320 pages, including appendix with summaries of all 100+ missions through April 2001. Published by Dorling Kindersley. In bookstores June 2002. $40

**TO ORDER THIS BOOK FROM SMITHSONIAN SHOPS, CALL (202)357-1387 OR -1388.**

# A BETTER HOLIDAY GIFT

## *THERE NEVER WAS*

**You can save the life of a disabled person, in the name of a loved one, for only $75**

For each $75 donation, you will receive a beautiful presentation folder with the picture of a wheelchair recipient and a certificate with their name, age, country, and wheelchair number. We will personalize each certificate to read from you, and in the name of or memory of a special person in your life.

***This is a gesture of love that will last a lifetime.***

The Wheelchair Foundation matches each $75 donation and then delivers a wheelchair to a person in need. An entire 240-wheelchair container can be sponsored for $18,000.00 to one of our 59 established distribution countries.

**The Wheelchair Foundation has changed the lives of over 60,000 people in 95 countries with the gifts of hope, mobility and freedom... a wheelchair.**

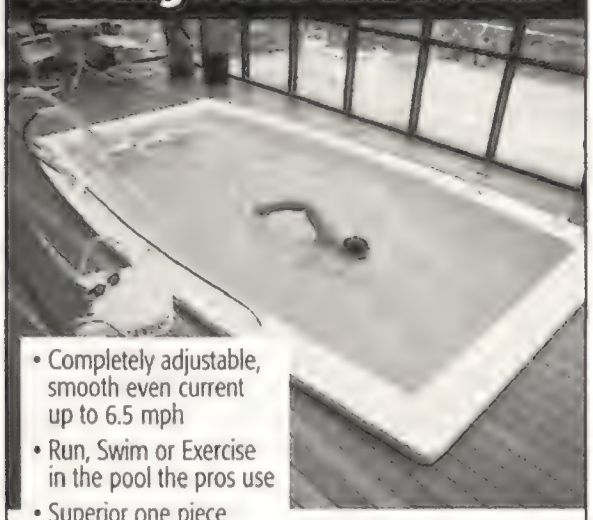
**You can donate online at WWW.WHEELCHAIRFOUNDATION.ORG**
**OR CALL TOLL FREE (877) 378-3839**

Wheelchair Foundation
*"Serving the World"*

Thank you to Rotary Clubs worldwide for their dedication to helping the disabled.


**Wheelchair Foundation • 3820 Blackhawk Road • Danville, California 94506 USA**
**(925) 736-8234**

**Nothing Flows Like SwimEx**



- Completely adjustable, smooth even current up to 6.5 mph
- Run, Swim or Exercise in the pool the pros use
- Superior one piece construction
- Easy installation and maintenance
- Prices start at $21,900
  *Factory direct prices available in some locations*

SwimEx®
Aquatic Therapy, Sports & Conditioning Pools
**Call today: 800-877-7946**
**or visit www.swimex.com**



**Brown Bears**
*of Katmai National Park*

The world's most accessible location for viewing brown bears. See them in their natural environment at the scenic Brooks River in Katmai, Alaska.

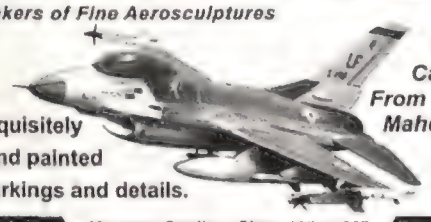
6-day Tour: $2,145
**800-368-0077**
**www.travelwild.com**
SM64

TravelWild EXPEDITIONS



WARPLANES.COM
The Collectors Choice

*Makers of Fine Aerosculptures*



*Hand Carved From Solid Mahogany*

Exquisitely hand painted markings and details.

*Satisfaction Guaranteed!*
Museum Quality • Sizes 16" to 22"
Stand Included • From $99.95
*Catalog & Orders*

**800-950-9944**
**www.warplanes.com**
Over 750 Models In Stock
14255 N. 79th St. • Scottsdale, AZ 85260



*patrioticmusic.com*
*For the finest patriotic CD's:*
*AmeriMusic, Inc.*
*1-800-521-1585 ext. 2*



**thebrightspot.com**

Free catalog and excellent website of Arts & Crafts, Mission, Prairie, Mica and Tiffany style lamps, fixtures, tables.
*Arroyo Craftsman's Mission Outdoor Lantern.*
**The Bright Spot, Inc.**
**Catalog 1-800-736-0126 Web: thebrightspot.com**

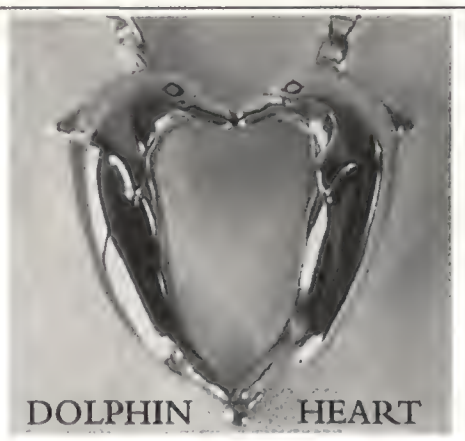

to stay dead. Frontiersmen have always been Out There, in remote ranches, in the hills and valleys beyond the whir of the Interstate, making their living on horseback and adjusting uneasily to the latest in the incarnations of the "New West."

Frank Clifford, who is the environment editor of the *Los Angeles Times* and a man who can work a cattle drive as well as drive a freeway, went looking for them in this book about the Continental Divide. He found them, of course, along America's great spine, in Wyoming, Montana, Colorado, New Mexico—and he describes the nature of their lives and the rugged country they still cherish with clarity, irony and just the right amalgam of attachment and detachment.

Clifford profiles a Colorado sheepman, a poacher-hunting Yellowstone Park ranger, a down-and-out New Mexico rancher and a band of Wyoming cowboys, among other Continental Divide folks. In the best of these sketches, about a cattle drive across a barren expanse of southern Wyoming, he lets a cowpuncher explain the attraction: "I can be my own boss. I can do something different every day. I'm a carpenter or a mechanic one day, a veterinarian the next. . . . The economics of it can keep you awake at night. . . . Believe me. But it's a different kind of freedom. It lets me do what I'm good at." Clifford elaborates: "He doesn't own the land. He doesn't own much of anything. But he owns his life in ways that most of us do not."

Clifford understands the abiding ironies of the West, that "no region of the country is more devoted to the myth of rugged self-sufficiency [and] none more dependent on federal largesse." He is aware that all those feisty, cantankerous hangers-on are kept afloat in part by gourmet beer, bed-and-breakfasts, adventure travel and all-season resorts.

But the ironies and contradictions don't matter much when you're actually in places like the Great Divide Basin in Wyoming: "On a


Elizabeth Allen Tuttie noted artist and jewelry designer has created this lovely kissing Dolphin Heart, symbolizing the essence of love. The solid sterling silver Dolphin Heart comes complete with 20" sterling silver chain, polishing cloth and pouch. 30x30mm. $95. plus $3.50 shipping. 14 Kt. $450. Your Dolphin will be shipped in 24 hours. V/MC/AmEx/Dis/Chk. **www.maingem.com**
**MAIN GEM** 40 Bayview St., Camden, Maine 04843 **1-800-356-6310**



**TerraCottaWarriors.Com**

*We sell reproductions of these 2200 year old Chinese statues*
*Visit our website or 661-298-2296*
*From small gift sets to life size!!!!*



**New WEATHER STATION**

***New MK III***
*-Wireless*
*-Solar powered*
*-Made in USA*

**www.Rainwise.com** **1-800-762-5723**

**Leather Accessories by Bosca®**
*See a wide selection on our website or request a free catalog*
**800-324-4934 davidmorgan.com**
**David Morgan**
11812 N Creek Pkwy N, Suite 103•Bothell WA 98011

**Cartouche**
**18k Solid Gold or Egyptian Sterling Silver**
**A Talisman with *Any Name* in Hieroglyphs.**
**Protective Charms, Powerful Amulets, Beautiful Gifts.**
**Free Catalog: Email: sales1@cartoucheltd.com**
**Write: P.O.Box 25158, Alexandria, VA 22313 or call:**
**1-800-AT EGYPT (1-800-283-4978)**



SMITHSONIAN (ISSN 0037-7333) is published monthly by Smithsonian Business Ventures, P.O. Box 37012, MRC 951, Washington, D.C. 20013. © Smithsonian Institution 2002. All rights reserved. Reproduction in whole or in part without permission is prohibited. Editorial offices are at MRC 951, Washington, D.C. 20013 (202-275-2000). Advertising and circulation offices are at 420 Lexington Ave., New York, NY 10170 (212-490-2510). **Subscription Prices:** United States and possessions: $32 a year payable in U.S. funds. Canada add $13 (U.S. funds) for each year. Foreign add $26 (U.S. funds) for each year. Ninety percent of dues is designated for magazine subscriptions. Current issue price is $4 (U.S. funds). Back issue price is $5 (U.S. funds). Periodical postage paid at Washington, D.C. and additional mailing offices. **Mailing Lists:** From time to time we make our subscriber list available to companies that sell goods and services by mail that we believe would interest our readers. If you would rather not receive such mailings, please send your current mailing label, or an exact copy, to: SMITHSONIAN, Mail Preference Service, P.O. Box 420311, Palm Coast, FL 32142-0311. **Subscription Service:** Should you wish to change your address, or order new subscriptions, you can do so by writing SMITHSONIAN, P.O. Box 420311, Palm Coast, FL 32142-0311, or by calling 1-800-766-2149 [outside of U.S., call 1-386-447-2721]. Postmaster: Send address changes to SMITHSONIAN, P.O. Box 420312, Palm Coast, FL 32142-0312. Printed in the USA. Canadian Publication Agreement No. 40043911.

## Buick Park Avenue Ultra's Smithsonian Magazine Sweepstakes Official Rules

[Rules Continued from page 48.] mailed separately and postmarked by 11/22/02; OR 2) Via the Internet by visiting www.ParkAvenue.com. Follow the instructions posted on the entry screen, subject to the terms and conditions herein. Limit one online entry per day, per person, per email address. If more than one entry is received per day per account holder, only first entry will be entered and all additional entries will be discarded. Each entry will be deemed to have been submitted by the authorized account holder of the screen name or e-mail address from which the entry is made. Any attempts by an individual to access the site via a bot script or other brute-force attack will result in that IP address becoming ineligible. Sponsors reserve the right to suspend or cancel online entries for the Sweepstakes without notice if Web site becomes infected with a virus or is otherwise technically corrupted. Sponsors are not responsible for incomplete, lost, late, misdirected, damaged, illegible, postage-due entries, or incomplete transmission defaults, computer server failure and/or delayed, garbled or corrupted data transmitted by participants via the Internet. All entries become the exclusive property of the Sponsors and will not be acknowledged or returned. By entering this Sweepstakes, entrants accept and agree to be bound by these Official Rules and the decisions of the judges, which shall be final, binding and conclusive on all matters. All Internet entries must be received by 11:59:59 p.m. EST 11/22/02. All mail-in entries must be postmarked by 11/22/02 and received by 12/2/02. ELIGIBILITY: Sweepstakes open only to current legal U.S. residents who are 18 years of age or older. Employees and household members of General Motors Corporation or Smithsonian Magazine ("Sponsors"), and each of their respective affiliates, agencies, parents, subsidiaries, vendors, suppliers, wholesalers and retailers and members of their immediate families are not eligible. Void where prohibited, taxed or otherwise restricted by law. All federal, state and local laws and regulations apply. PRIZE: GRAND PRIZE (1): Grand Prize winner will receive a four day/three night vacation package for Grand Prize winner and one (1) guest (who must be 18 years of age or older) to Washington, D.C. Grand Prize vacation package includes round-trip coach air transportation for winner and guest from the major airport nearest winner's primary residence (if winner resides within 100 miles of Washington, D.C., car service may be substituted for airfare at the Sponsors' discretion), ground transportation to and from destination airport and hotel in a Buick Park Avenue Ultra, standard double-occupancy hotel accommodations for three (3) nights (Hotel to be selected by Sponsors), two (2) lunches (Restaurants to be selected by Sponsors. Alcoholic beverages not included), three (3) dinners (Restaurants to be selected by Sponsors. Alcoholic beverages not included), one (1) private "Monuments at Night" guided tour for winner and guest, Guided VIP tours of three (3) Smithsonian properties for winner and guest (Sponsors reserve the right to select each property), two (2) tickets to two (2) IMAX films (films to be selected by Sponsors), two (2) tickets to the National Holocaust Museum and $200 spending money. Travel must be completed by 11/22/03. Other restrictions may apply. If winner and guest cannot complete vacation by the date specified herein, Grand Prize will be forfeited and an alternate winner will be randomly selected. Winner's choice of dates is subject to availability and blackout dates. (ARV of Grand prize is $3,899. Actual ARV will be based upon dates of travel selected and actual cost of round trip, coach airfare.) All other expenses not specifically mentioned herein, including, but not limited to, taxes, additional meals, beverages, gratuities and other activities are the sole responsibility of Grand Prize winner and guest. Sponsors are not responsible for airport or other transportation delays or cancellations due to unforeseen circumstances, including but not limited to inclement weather. No prize substitutions or payment if travel is delayed or cancelled, except at the sole discretion of the Sponsors. Grand Prizewinner and guest must travel together on same itinerary. In the event that any portion of the Grand Prize package becomes unavailable, Sponsors reserve the right to make substitutions of equal or greater value. Taxes, if any, are the winner's sole responsibility. No transfer or assignment of prizes permitted. No cash alternative will be awarded, except at the sole discretion of each Sponsor. Grand Prizewinner is required to complete and return an Affidavit of Eligibility/Publicity (where permitted) Release and a Travel Release. Travel companion must be 18 years of age or older and must sign a Travel Release/Publicity (where permitted) Release. Affidavit of Eligibility/ Publicity Release and Travel Releases must be signed and returned within 14 days of notification. If documentation is not received within 14 days, Grand Prize will be forfeited and an alternate winner will be randomly selected. Entry constitutes winner's permission to use his/her name, photograph and/or voice recordings for advertising or publicity purposes, in all media, without additional compensation or permission, except where prohibited by law. Odds of winning depend on number of eligible entries received. GRAND PRIZE WILL BE AWARDED. DRAWING: Grand Prize will be awarded in a random drawing on or about 1/2/03, from among all valid entries received. The drawing will be conducted by an independent judging agency whose decisions are final. Grand Prizewinner will be notified via telephone. Please allow 4 weeks for arrangement and delivery of travel/hotel stay portion of prize. WINNER'S NAME: For the name of the winner, send a S.A.S.E. to: Buick Park Avenue Ultra's Smithsonian Sweepstakes, PO Box 8747, Westport, CT 06888 by 1/30/03. RELEASE OF LIABILITY: All entrants release Sponsors and their respective agencies and each of their respective parents, affiliates, subsidiaries, wholesalers, retailers, officers, directors, agents, employees and all others associated with the development and execution of this Sweepstakes from any and all liability with respect to or in any way arising from this Sweepstakes and/or acceptance or use of the prizes, including liability for personal injury, death, damages or monetary loss. Sponsors are not responsible for utility or quality of any prize or part thereof. SPONSORS: Smithsonian Magazine, New York, New York. Buick Motor Division, Detroit, Michigan.

© 2002 Smithsonian Magazine © 2002 GM Corp. All rights reserved

spring morning," Clifford writes, "when the darting pronghorn are as thick as locusts, and bands of mule deer are bunched in the draws, when there are fresh bobcat tracks in the mud and coyote kill steaming in the frosty dew under the gaze of a circling golden eagle, it can seem like the ark unloaded most of its North American passengers right here."

*Reviewer Donald Dale Jackson, who writes from Connecticut, is the author of* Gold Dust, *a history of the California gold rush.*

### PICTURE CREDITS

**50-60** All paintings reproduced with permission from Banco de México Diego Rivera & Frida Kahlo Museums Trust. Instituto Nacional de Bellas Artes y Literatura. **50** From top left: CNAC/MNAM/Dist Réunion des Musées Nationaux/Art Resource, New York; Guillermo Kahlo/Throckmorton Fine Arts, New York; Schalkwijk/Art Resource; Guillermo Kahlo/Throckmorton Fine Arts; Jacques and Natasha Gelman Collection; Imogen Cunningham Trust/Throckmorton Fine Arts; Gelman Collection; Nickolas Muray/George Eastman House; Schalkwijk/Fundacion Dolores Olmedo, Mexico City/Art Resource; **51** Peter A. Juley & Son Collection, Smithsonian American Art Museum, S.I.; **52** Guillermo Kahlo/Throckmorton Fine Arts; Museum of Modern Art/SCALA/Art Resource; **53** Peter A. Juley & Son Collection, Smithsonian American Art Museum, S.I.; Gelman Collection; **54** Banco de México Diego Rivera & Frida Kahlo Museums Trust/Corbis; **55** Museo Nacional de Arte Moderno, Instituto Nacional de Bellas Artes, Mexico City/Schalkwijk/Art Resource; **56** Corbis; National Museum of Women in the Arts, Washington, DC; AP Photo; **58** Museum of Modern Art/SCALA/Art Resource; Banco de México Diego Rivera & Frida Kahlo Museums Trust; Museo Frida Kahlo; **60** Peter Sorel/Miramax; Fritz Henle/Throckmorton Fine Arts


Geological wonders, fascinating wildlife, and legends and lore...
One lifetime to discover it.
Canada.

Choose from 4 Canada Itineraries
Starting at $1299
- Exploring the Canadian Rockies
- The Best of the Pacific Northwest
- Canada's Atlantic Coast and Eastern Canada
- Natural Newfoundland and Legendary Labrador

Call 1-888-344-5576
Smithsonian Journeys
TRAVEL ADVENTURES
with COLLETTE VACATIONS
Canada
Discover our true nature
*Based on per person, land only, double occupancy. Rates vary by season. Air inclusive rates also available.
www.collettevacations.com/smithsonian/traveladventures
SMITHADCTC CST# 2006766-20

THE LAST PAGE

# Preparing for the Best

BY JOHN TIERNEY

*Thanks to the mega-selling* Worst-Case Scenario *handbooks, we now know how to cope with charging bulls, plunging elevators and runaway locomotives. But we remain woefully unprepared for dealing with good fortune. I've consulted the world's leading experts on best-case scenarios, and here are some suggestions:*

**How to be a Nobel Peace laureate**

1. Feign astonishment when the media call at 3 A.M.

2. Hint that the prize money will be used to "further the cause." Don't worry, this in no way legally obligates you to actually share it.

3. Resist the temptation to intervene in disputes outside your expertise. Participants in bar fights, domestic disputes and traffic accidents may not appreciate your attempts to mediate. Trying to reason with them—"Yo, I'm a @#$%ing Nobel Peace laureate!"—may only inflame the situation.

4. Exercise discretion when wearing the Nobel medal. It is often an excellent ice-breaker but is best not displayed on first dates; hanging from the rear-view mirror to get out of speeding tickets; or at job interviews.

**How to cope with a polite teenage child**

1. Ask, "What's wrong?"

2. Inspect your car for fresh dents.

3. Look for telltale signs of drug use: persistent smiling, hugging, laughter, insistence on smelling the roses, generalized delight in life.

4. If you find no dents or drugs, accept your good luck.

5. Make sure the teenager is present whenever other parents are invited over. Act nonchalant when the teenager stands as adults enter the room, shakes their hands while looking them in the eye, and makes effortless small-talk. ("Gosh, Mrs. Smith, that's a gorgeous dress!") When jealous parents express amazement, shrug and say, "We really can't take any credit for it." If they press you for your secret, tell them, "Love. Just love."

6. Innocently ask how their teenagers are doing, such as: "So, how many nose rings does Sydney have now?" Listen to their sad tales, interjecting supportive comments:

"Oh, I wouldn't be too hard on him if I were you. They all go through a Satan-worshiping phase."

"They're not really going to prosecute Bob Junior, are they?"

**How to be a British monarch**

1. Go to the nearest balcony. Wave. For the properly tight wrist motion, pretend to unscrew a light bulb. If you have no idea how to change a light bulb—and why would you?—pretend you are polishing an orange.

2. Always carry scissors. If you pass a hospital, school or agricultural research center, open it.

3. To keep the Continent "on its toes," hint that you are making military plans for "another crack at the Hun."

4. If anyone tries to start a conversation with you, turn to staff and announce, "Off with his head!" In the modern era, alas, your order may not be obeyed. But you will have reminded the public that no one is supposed to speak to a monarch without being spoken to first. It's the job's best perk. Don't waste it.

5. View skeptically your oldest child's suggestions for "exciting" new recreations. Do not redeem gift certificates for lessons in skydiving, Grand Prix auto racing or rock climbing.

6. Once a year, generate a scandal to keep the respectable media interested. You owe it to the British economy. A year without a royal indiscretion could trigger massive unemployment among the empire's journalists, ink suppliers and mug manufacturers.

7. Once a century, abdicate.

*Adapted from* The Best-Case Scenario Handbook *by John Tierney, just published by Workman Publishing Company. Tierney is a correspondent for the* New York Times.

RICHARD THOMPSON

# American Traditions

Some things are best when they have a surprise inside. Not your investments.

When you choose a value fund, you expect it to perform like a value fund. Which is why our funds are managed to ensure style consistency. They let you build a balanced portfolio with confidence. Our seasoned managers have been through numerous market rotations. This perspective allows them to keep our funds on course for the long term. To learn more, please call your advisor or visit us at americancentury.com.

You'll find the way we manage our value funds says a lot about our values as a company.

| Overall Morningstar Ratings™ | |
|---|---|
| Equity Income | ★★★★★ |
| Large Company Value | ★★★★ |
| Tax-Managed Value | ★★★★★ |

*Overall Morningstar Ratings™ as of 7/31/02. Large Company Value and Tax-Managed Value Funds rated for the overall period among 617 Large Value funds. Equity Income Fund rated for the overall period among 189 Mid-Cap Value funds. Past performance is no guarantee of future results. Investment returns and principal values may fluctuate and redemption value may be more or less than original cost.*

*For each fund with at least a 3-year history, Morningstar calculates a Morningstar Rating™ based on a Morningstar Risk-Adjusted Return measure that accounts for variations in a fund's monthly performance (including the effects of sales charges, loads and redemption fees), placing more emphasis on downward variations and rewarding consistent performance. The top 10% of funds in each category receive 5 stars, the next 22.5% receive 4 stars, the next 35% receive 3 stars, the next 22.5% receive 2 stars and the bottom 10% receive 1 star. (Each share class is counted as a fraction of one fund within this scale and rated separately, which may cause slight variations in the distribution percentages.) The Overall Morningstar Rating for a fund is derived from a weighted average of the performance figures associated with its 3-, 5- and 10-year (if applicable) Morningstar Rating metrics. The funds had the following ratings for the 3-, 5- and 10-year periods, respectively. Large Company Value 4, NA, NA; Tax-Managed Value 5, NA, NA out of 617 U.S.-domiciled Large Value funds; Equity Income 4, 5, NA out of 189 and 125 U.S.-domiciled Mid-Cap Value funds.*

*Morningstar Rating is for the investor share class only; other classes may have different performance characteristics.*

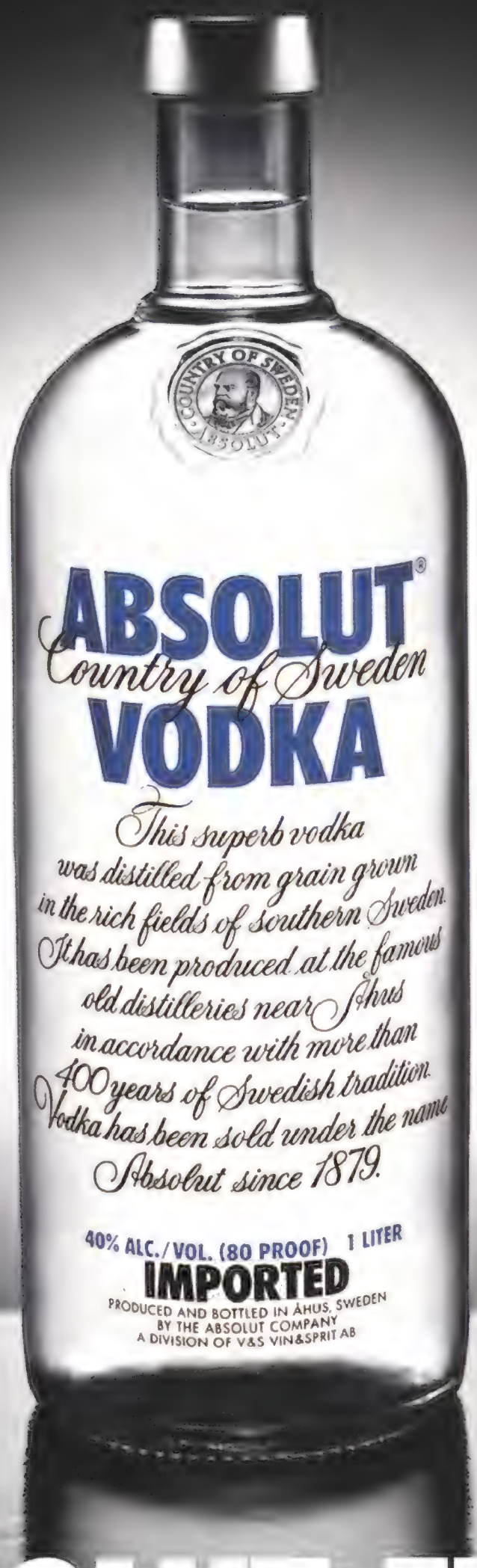
***Please call 1-877-44-AMCEN for a prospectus with more complete information, including charges, expenses and minimums. Be sure to read it carefully before you invest or send money.***

*CRACKER JACK, SAILOR JACK AND BINGO, and the SAILOR JACK and BINGO characters are trademarks of Recot, Inc. ©2002 Recot, Inc.*

*American Century Investment Services, Inc. ©2002 American Century Services Corporation*

AMERICAN CENTURY.

Investment Managers


COUNTRY OF SWEDEN
ABSOLUT
ABSOLUT®
Country of Sweden
VODKA
This superb vodka
was distilled from grain grown
in the rich fields of southern Sweden.
It has been produced at the famous
old distilleries near Åhus
in accordance with more than
400 years of Swedish tradition.
Vodka has been sold under the name
Absolut since 1879.
40% ALC./VOL. (80 PROOF) 1 LITER
IMPORTED
PRODUCED AND BOTTLED IN ÅHUS, SWEDEN
BY THE ABSOLUT COMPANY
A DIVISION OF V&S VIN&SPRIT AB

# ABSOLUT ENVY.

ABSOLUT VODKA. PRODUCT OF SWEDEN. 40 AND 50% ALC/VOL (80 AND 100 PROOF). 100% GRAIN NEUTRAL SPIRITS. ABSOLUT COUNTRY OF SWEDEN VODKA & LOGO, ABSOLUT, ABSOLUT BOTTLE DESIGN, ABSOLUT CALLIGRAPHY AND ABSOLUT.COM ARE TRADEMARKS OWNED BY V&S VIN & SPRIT AB. ©2002 V&S VIN & SPRIT AB.
IMPORTED BY THE ABSOLUT SPIRITS CO., NEW YORK, NY. PHOTOGRAPH BY STEVE BRONSTEIN. **absolut.com**

ENJOY WITH ABSOLUT RESPONSIBILITY

# OFFICIAL PROGRAM OF THE LEWIS & CLARK BICENTENNIAL

The Lewis and Clark Expedition was a journey of adventure, courage and cross-cultural cooperation. Relive the epic by retracing the explorers' path across America, seeing what they saw and visiting with tribal communities whose rich cultures continue to thrive today.

January 2003 marks the start of the Lewis and Clark Bicentennial, which runs through September 2006. The following signature events offer a "rolling commemoration" of fun, pageantry, patriotism and dialogue. Events will be linked by "Corps of Discovery II: 200 Years to the Future," planned by the National Park Service and other agencies. A combination of mobile museum exhibits, live interpretation, technology and a "tent of many voices," Corps II will travel to the signature events, as well as other towns along and away from Lewis and Clark's route.

As one of the biggest commemorations of the 21st century, the Lewis and Clark Bicentennial will make history in its own right, and you'll want to be there. So mark your calendars, make your plans and join us for the journey. For details or updates, contact event organizers or see the National Council of the Lewis and Clark Bicentennial's web site at www.lewisandclark200.org.

**JANUARY 14-19, 2003**

## Bicentennial Inaugural: Jefferson's West

**CHARLOTTESVILLE, VIRGINIA**

The Lewis and Clark Expedition was the realization of Thomas Jefferson's dream to explore the far reaches of North America, so it's fitting the Bicentennial begins at his mountaintop home, Monticello. Jefferson's secret message to Congress requesting money for an expedition to the Pacific Ocean will be commemorated January 18, 2003, with star-studded ceremonies, music and speakers. "Jefferson's West: A Lewis and Clark Exposition" will include lectures, arts performances and the opening of Monticello's yearlong exhibit re-creating the "Indian Hall" in which Jefferson displayed items collected by Lewis and Clark.

(434) 984-9822 www.monticello.org

**OCTOBER 14-26, 2003**

## Falls of the Ohio

**LOUISVILLE, KENTUCKY, AND CLARKSVILLE, INDIANA**

After months of preparation in Washington, D.C., West Virginia, Pennsylvania and Ohio, Meriwether Lewis reached the Falls of the Ohio in October 1803 to join his co-commander, William Clark. The historic teaming will be marked with festivities, re-enactments, recognition of Corps of Discovery descendants and a salute to York, Clark's servant and the only African American on the trip. The Shawnee Indian nation will offer interpretation, tours of its ancestral homelands and a musical extravaganza.

(502) 292-0059
www.fallsoftheohio.org/lewisandclark.html

**MARCH 14, 2004**

## Three Flags Ceremony

**ST. LOUIS, MISSOURI**

On March 14, 1804, dignitaries from three nations (including Lewis as a witness) met to transfer the Upper Louisiana Territory from Spain to France to the United States. This deal, which doubled the size of the United States and made it a world power, will be re-enacted under St. Louis' Gateway Arch on March 14, 2004.

(314) 516-6884
http://louisianapurchase.umsl.edu

**MAY 13-16, 2004**

## Expedition's Departure: Camp River Dubois

**HARTFORD AND WOOD RIVER VICINITY, ILLINOIS**

The expedition wintered 1803-1804 at Camp River Dubois while making final trip plans. An "Eve of Discovery" gala on May 13, 2004, will feature nationally known musical acts and special guest speakers. May 14 will feature a re-enactment of Lewis and Clark's departure from the banks of the Mississippi, to the accompaniment of music and an Air Force fly-over.

(618) 467-2288
www.lewisandclarkillinois.org

**MAY 14-23, 2004**

## St. Charles: Preparations Complete, the Expedition Faces West

**ST CHARLES, MISSOURI**

The trio of St. Louis-area events will conclude with Lewis and Clark Heritage Days, showcasing the authentic sounds and sights of 1804. On May 23, 2004, the community will offer a rousing send-off to its own Discovery Expedition of St. Charles, which is re-creating the expedition's voyage with authentic replica watercraft.

(800) 366-2427
www.lewisandclarkstcharles.com

Photo: ©Brent W. Phelps

Lewis reached the Falls of the Ohio in October 1803 to join his co-commander, Clark.

**JULY 3-4, 2004**

## Heart of America: A Journey Fourth

**KANSAS CITY AREA, MISSOURI/KANSAS**

Lewis and Clark marked Independence Day 1804 near present-day Atchison, Kansas, and the Kansas City metro area will note the occasion with a huge heartland celebration. Fireworks will paint the sky, celebrities will read the Declaration of Independence and Kansas City's Berkley Park will be the site of an American bison barbecue contest and a multicultural fair.
(800) 767-7700 www.visitkc.com

**JULY 31-AUGUST 3, 2004**

## First Tribal Council

**OMAHA, NEBRASKA, AREA**

Lewis and Clark had the first of many councils with Native Americans in midsummer 1804, when they met with the Otoe-Missouria tribe at what is now Fort Atkinson State Historic Park. Plans call for an art show, celebrations of regional Native American culture and a re-enactment near the very spot where the parties met.
(402) 471-3368 www.visitnebraska.org

**AUGUST 27-28, 2004**

## Oceti Sakowin Experience: Remembering and Educating

**DAKOTA/LAKOTA/NAKOTA TRIBES AND THE STATE OF SOUTH DAKOTA**

Lewis and Clark met the Yankton Sioux along the present-day Nebraska-South Dakota border and the Teton Sioux near Pierre. Hear the Dakota/Lakota/Nakota nations' stories of the encounters and their history before and after the expedition. An art auction, Circle of Tipis festival and re-enactment of the 1804 Yankton Sioux-Corps meeting at Calumet Bluff are planned, and tribal representatives will be available to help people plan off-the-beaten-path adventures along the newly established Native American Scenic Byway.
(605) 473-0561 www.travelsd.com

**AMERICAN WEST STEAMBOAT COMPANY**

*Cruise into history®* along the Lewis & Clark Trail aboard an authentic sternwheeler. Round-trip 7- and 11-night cruises from Portland, Oregon, on a 1,000 mile voyage of discovery along the Columbia and Snake Rivers. Featuring fully narrated shore excursions, live nightly entertainment in two showrooms and fine dining in the Lewis & Clark Dining Room all included in the cruise fare.

**OCTOBER 22-31, 2004**

## Circle of Cultures: Time of Renewal and Exchange

**BISMARCK, NORTH DAKOTA, AREA**

Cooperation was a hallmark of the Corps of Discovery's winter of 1804-1805, spent amid the Mandan-Hidatsa villages of present-day North Dakota. The explorers met Sacagawea, who joined them the following spring, and the expedition and tribes shared provisions and vital information. The "Circle of Cultures" event will renew these bonds and let visitors experience the trading center of the Northern Plains.
(701) 663-4758 www.fortlincoln.com

**JUNE 2-JULY 4, 2005**

## Explore the Big Sky

**GREAT FALLS, MONTANA**

Two days of events will mark the bicentennial's second Independence Day. Plains Indian culture will be the focus of July 3 activities, while July 4 will recognize the achievements of the Corps of Discovery. The commemorations conclude more than a month of events in the Great Falls area, including those centered around the arrival of the expedition at the mouth of the Marias River and Lewis' reconnaissance of the Great Falls.
(406) 455-8451 www.explorethebigsky.org

**NOVEMBER 24-27, 2005**

## Destination 2005 — The Pacific

**LOWER COLUMBIA RIVER, WASHINGTON AND OREGON**

It'll be a Thanksgiving to remember as the Lower Columbia River region recalls the expedition's arrival at the Pacific Ocean. Washington activities will include a community Thanksgiving dinner and re-creation of the expedition's historic Station Camp vote on where to spend the winter. On Thanksgiving weekend, everyone will be invited to cross the Columbia on foot via the 4-mile-long Astoria-Megler Bridge.

**MISSOURI DEPARTMENT OF TOURISM**

Trailblazers who wish to rekindle the spirit of discovery fostered by Meriwether Lewis and William Clark's transcontinental journey of exploration need only travel to Missouri, the starting point for the expedition nearly 200 years ago. The many historic settlements along the Missouri River Valley that grew up in the path of Lewis and Clark welcome visitors from around the world who wish to follow in the footsteps of the original explorers. Pack up your travel journal, a pair of walking shoes and your spirit of adventure and immerse yourself in the history, mystery and legend that is Missouri. See you on the trails.

*Top Photo: Katy Trail*
*Bottom Photo: Lewis & Clark Center, St. Charles*

*Keelboat on the Missouri River*

**LEWIS & CLARK EVENT HIGHLIGHTS**
FOR A COMPLETE LIST OF EVENTS
LOG ON TO WWW.VISITMO.COM

**THE 200TH ANNIVERSARY OF THE SIGNING OF THE LOUISIANA PURCHASE, LEWIS & CLARK HERITAGE DAYS**
Date: May 17, 2003 - May 18, 2003
Location: St. Charles
For more information: Greater St. Charles Convention & Visitors Bureau, (636) 946-7776 or 1-(800) 366-2427

**LEWIS & CLARK: THE NATIONAL BICENTENNIAL EXHIBITION**
Date: January 14, 2004 - September 6, 2004
Location: St. Louis
For more information: Missouri Historical Society, (314) 454-3150

**ST. CHARLES – PREPARATIONS COMPLETE, THE EXPEDITION FACES WEST**
Date: May 14, 2004 - May 23, 2004
Location: St. Charles
For more information, Ms. Venetia McEntire, (636) 946-7776

**CONFLUENCE WITH DESTINY: THE RETURN OF LEWIS AND CLARK**
Date: September 23, 2006
Location: St. Louis
For more information: Bob Moore, (314) 655-1600

Oregon plans an outdoor exposition featuring expedition-period food, arts and games. Fort Clatsop National Memorial will offer first-person accounts of the Corps' winter activities, as well as the dedication of a new trail linking the fort to its coastal salt works.
(503) 861-2471 www.nps.gov/focl

**JUNE 14-17, 2006**

## Among the Nez Perce

**LEWISTON/LAPWAI, IDAHO, AREA**

Heading home in spring 1806, Lewis and Clark camped several weeks with the Nez Perce, who had saved expedition members' lives the year before when the explorers emerged from a bitter crossing of the Lolo Trail. "Among the Nez Perce" will showcase the tribe's horsemanship and hospitality. Look for parades, drum group performances and programs on the tribe's work to preserve wolf and salmon habitat.
(208) 843-2253 www.nezperce.org

**JULY 25, 2006**

## Clark on the Yellowstone

**POMPEYS PILLAR/BILLINGS, MONTANA**

On July 25, 1806, Clark placed his signature on a monolith along the Yellowstone River. His autograph at Pompeys Pillar National Monument is the only remaining physical evidence of the expedition. "Clark on the Yellowstone" activities will include a re-enactment of his inscription and a Native American honor parade. Nearby Billings plans its own "Captain Clark Signature Days" the last week of July.
(406) 256-8628 www.clarkontheyellowstone.org

**AUGUST 17-20, 2006**

## Home of Sakakawea

**NEW TOWN, NORTH DAKOTA**

Who was Sacagawea – or Sakakawea, as she is known in North Dakota? What is the legacy of the woman who served as an interpreter and symbol of peace for the Lewis and Clark Expedition? Find out at the "Reunion at the Mandan, Hidatsa, Arikara Nation – Home of Sakakawea." Activities will take place near the spot where Sakakawea rejoined the Hidatsa tribe, who had adopted her, and where Lewis and Clark reunited after separate explorations of Montana in summer 1806.
(701) 627-2870 www.mhanation.com

**SEPTEMBER 23, 2006**

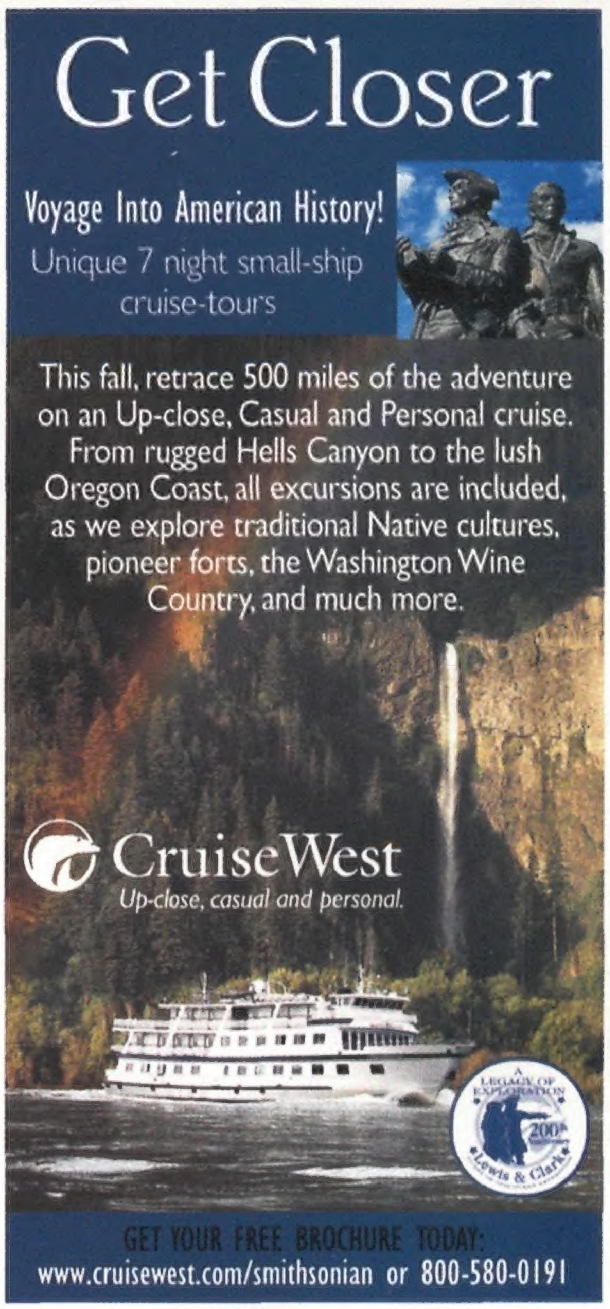
## The Return of Lewis and Clark

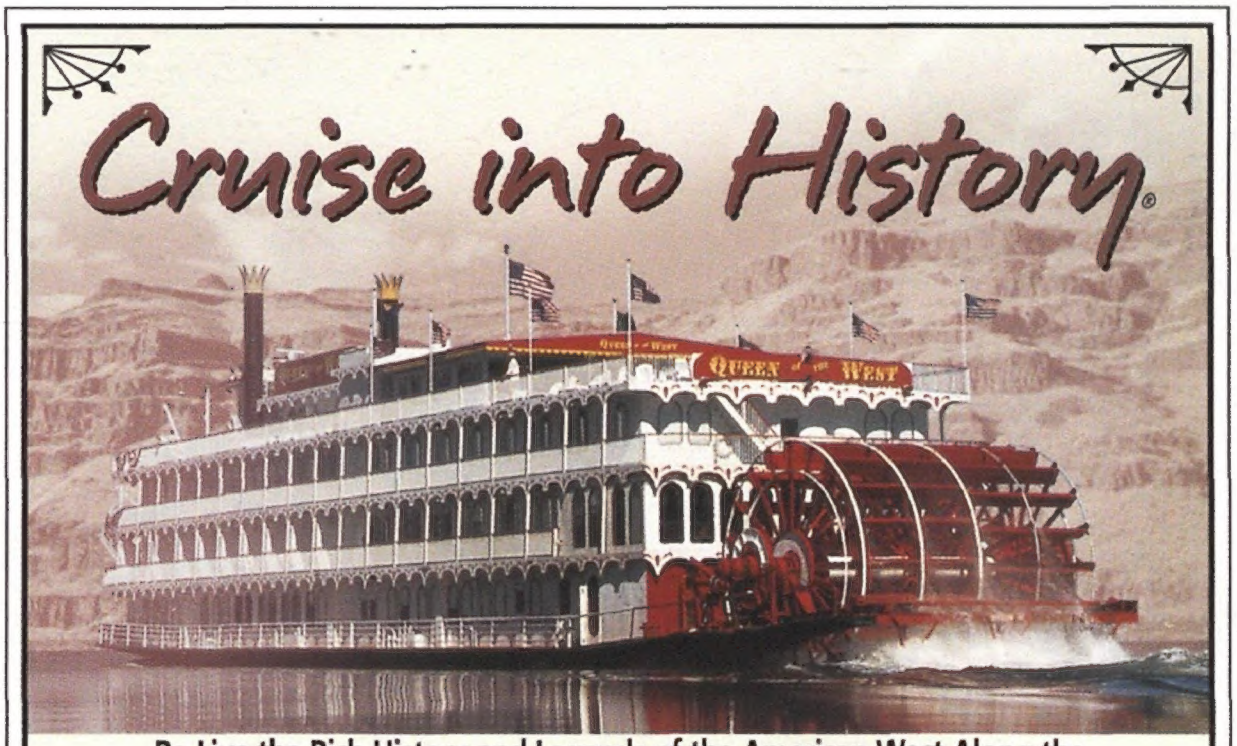
**ST. LOUIS, MISSOURI, AREA**

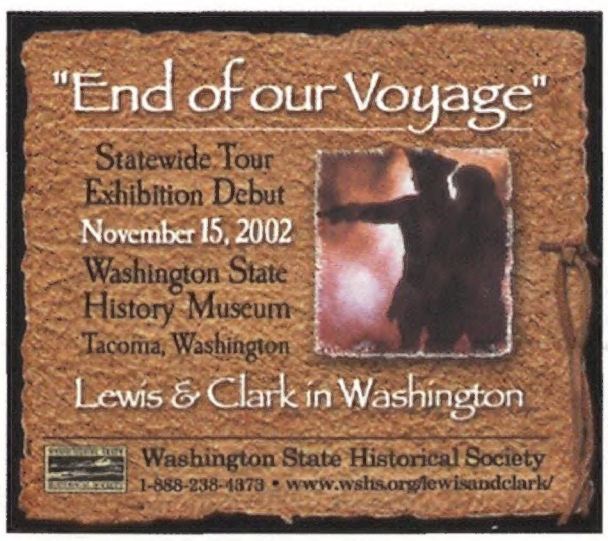
On September 23, 2006, a flotilla will re-enact the Corps' final landing at the Gateway Arch. Other weekend activities will include an American Indian cultural event, tours and encampments at expedition sites. The final signature event will explore the idea of rivers and trails both as links to the past and routes to the future.
(314) 655-1600 www.nps.gov/jeff/overview.htm

*Julie Fanselow is the author of* Traveling the Lewis & Clark Trail *(Falcon/Globe Pequot), and of the www.lewisandclarktravel.info website.*

*Cover Photo Top: Missouri Headwaters State Park, MT; ©Brent W. Phelps. Inset Photo: The Convention and Visitors Bureau of Greater Kansas City.*



Get Closer
Voyage Into American History!
Unique 7 night small-ship cruise-tours
This fall, retrace 500 miles of the adventure on an Up-close, Casual and Personal cruise. From rugged Hells Canyon to the lush Oregon Coast, all excursions are included, as we explore traditional Native cultures, pioneer forts, the Washington Wine Country, and much more.
CruiseWest
Up-close, casual and personal.
GET YOUR FREE BROCHURE TODAY:
www.cruisewest.com/smithsonian or 800-580-0191

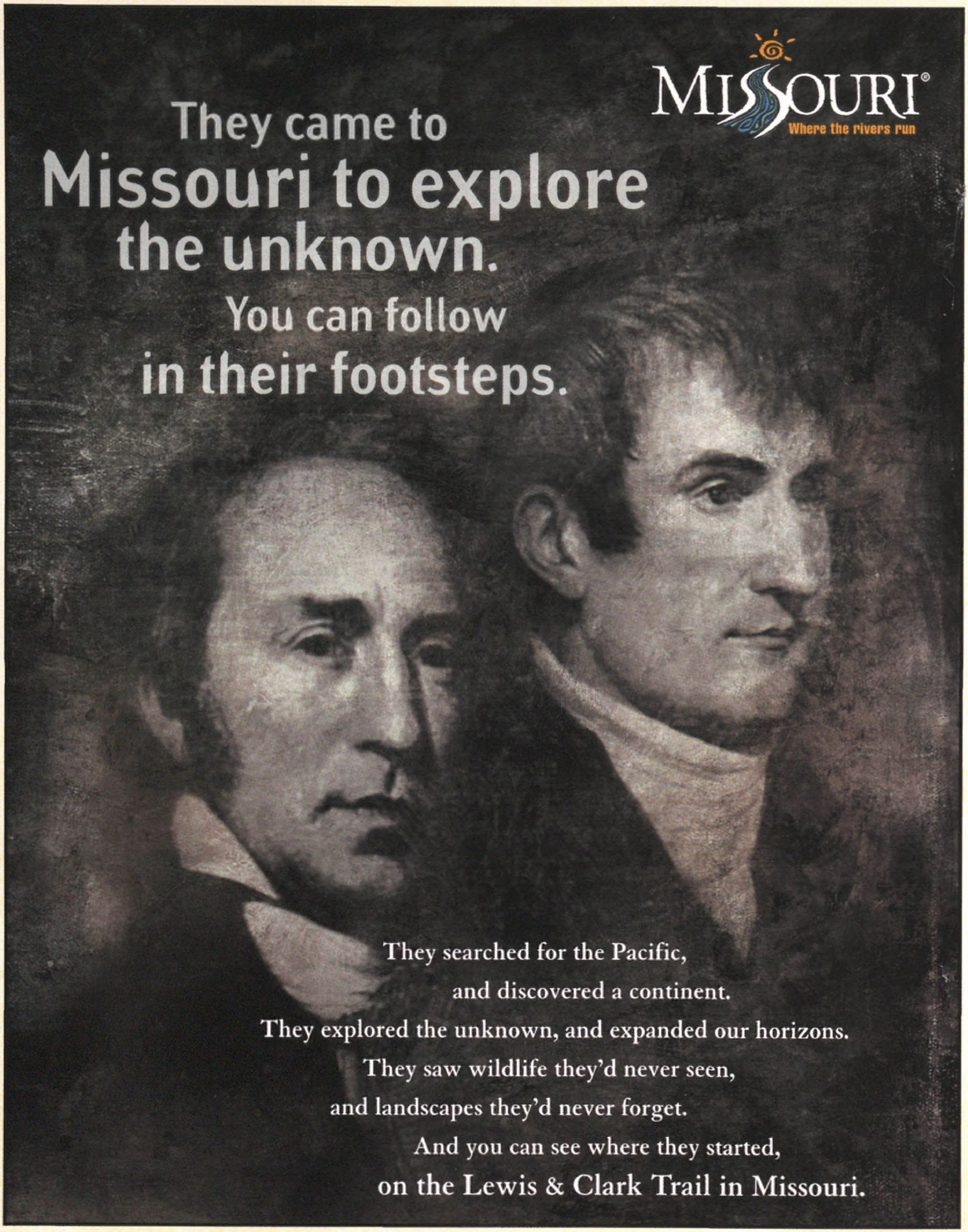

Cruise into History®
QUEEN OF THE WEST
Re-Live the Rich History and Legends of the American West Along the
Lewis & Clark Route, Oregon Trail & Columbia River Gorge on the Scenic & Historic
Columbia, Snake & Willamette Rivers
7 & 11-NIGHT CRUISES YEAR 'ROUND FROM PORTLAND, OREGON
•Faithfully recreated 19th Century Sternwheelers
•Spacious Outside Suites & Staterooms - many with private verandahs
• Fine Dining at an open, single seating
LEWIS & CLARK BICENTENNIAL
• Live, Nightly Showboat Entertainment & Dancing - All Included
• New, Exclusive Itineraries & Shore Excursions - All Included
• America's Newest Overnight Sternwheeler Cruise Ships
• 7-Night Cruises from $1,195*
11-Nights from $2,539*
(*Value season, call for details)
CRUISING THE GREAT RIVERS OF THE WEST:
Call NOW for Spectacular FREE Brochure
1-800-434-1232
AMERICAN WEST STEAMBOAT CO.
2101 4TH AVE., SUITE 1150 • SEATTLE, WA 98121
WWW.COLUMBIARIVERCRUISE.COM



MISSOURI®
Where the rivers run

# They came to Missouri to explore the unknown.

## You can follow in their footsteps.



They searched for the Pacific,
and discovered a continent.
They explored the unknown, and expanded our horizons.
They saw wildlife they'd never seen,
and landscapes they'd never forget.
And you can see where they started,
on the Lewis & Clark Trail in Missouri.

CALL 1-800-519-5300 EXT.285 FOR YOUR FREE MISSOURI TRAVEL KIT.
CONTACT YOUR TRAVEL PROFESSIONAL OR VISIT US AT WWW.VISITMO.COM